

STATE OF NEW MEXICO BEFORE THE WATER QUALITY CONTROL COMMISSION

IN THE MATTER OF THE PETITION FOR A PERMIT REVIEW OF)	
DISCHARGE PERMIT RENEWAL AND)	
MODIFICATION, DP-873)	
)	Docket No. WQCC_22-01_
CANNON AIR FORCE BASE (AFB))	
UNITED STATES AIR FORCE)	
D. C.C.)	
Petitioners.)	
V.)	
v.)	
NEW MEXICO ENVIRONMENT DEPARTMEN	T)	
)	
Respondents.)	
)	

OPPOSED MOTION FOR REMAND

I. INTRODUCTION

Respondent, New Mexico Environment Department (NMED) issued a draft of DP-873 to Cannon AFB in February 2021 pursuant to the New Mexico Water Quality Act, (WQA), NMSA 1978 §§ 74-6-1 *et. seq.* Petitioner Cannon AFB, United States Air Force, timely submitted comments on the draft permit and requested a meeting with NMED in May 2021. On December 15, 2021, NMED issued DP-873, including its response to comments. The Air Force timely filed an administrative appeal of DP-873 by filing a Petition for Permit Review and Notice of Appeal of DP-873 on January 13, 2022. The Air Force asked NMED's counsel if it would oppose a motion for remand on January 14, 2022. NMED's Counsel responded on January 20, 2022 that it opposes the motion. For the reasons outlined below, Cannon Air Force Base, United States Air Force respectfully moves for Remand to NMED.

Pursuant to 20.1.3.16.A(3) NMAC of the Adjudicatory Procedures for the New Mexico Water Quality Control Commission, the Air Force respectfully requests this Motion for remand to NMED for resolution of issues related to DP-873, issued on December 15, 2021 by NMED to Cannon AFB. As grounds for this motion, the Air Force states the following:

Under the WQA regulations, a state discharge permit administrative record consists of the application, any additional information required by NMED, any information submitted by the discharger or the general public, other information considered by NMED, and the proposed modification or permit renewal application. 20.6.2.3109.A NMAC. In a permit review, the Commission is to review the record compiled by NMED and allow any party to submit arguments. 1978 NMSA § 74-6-5(Q). Prior to the date set for review, if a party demonstrates that there was no reasonable opportunity to submit comment or evidence on an issue being challenged, the Commission shall order that additional comment or evidence be taken by the constituent agency. 1978 NMSA § 74-6-5(R); 20.1.3.16.A(3) NMAC.

The Commission may designate a hearing officer to review the record and the arguments of the parties and recommend a decision to the Commission. *Id.* The Commission's decision must consider the evidence contained in the record, and shall not be bound by the factual findings or legal conclusions of NMED. *Id.*; *see also* 20.1.3.16.F(3) NMAC. Based on its review of the evidence, the arguments of the parties and recommendations of the hearing officer, the Commission may sustain, modify or reverse the action of NMED. 1978 NMSA § 74-6-5(Q).

A reviewing court evaluates the Commission's decision on a whole record standard of review. *See Tallman v. ABF*, 767 P.2d 363, 367, 108 N.M. 124, 128 (Ct. App. NM 1988) (explaining that the whole record standard of review applies to administrative decisions); *Duke City Lumber Co. v. New Mexico Environmental Improvement Board*, 681 P.2d 717, 101 N.M.

297 (N.M. 1984). This standard of review contemplates a canvas by the reviewing court of all the evidence bearing on a finding or decision, favorable or unfavorable, in order to determine if there is substantial evidence to support the result. *Tallman*, 767 P.2d at 367, 108 N.M. at 128. It is a reasonableness standard that looks to see if there is substantial evidence in the whole record to support the finding or decision. *Id*.

Here, while the record is yet to be filed, DP-873 and NMED's response to comments indicate that NMED believes its record does not, or perhaps should not, include information on the Air Force's comprehensive perflourinated compound (PFC) response at Cannon AFB. As articulated in this Motion and supporting affidavit, there is significant, relevant information that is properly considered as part of its fact-finding. To ensure that NMED's findings and decision on DP-873 properly consider relevant information and evidence, remand is proper.

DP-873 contains numerous requirements that were not included in prior versions of DP-873. Cannon AFB submitted extensive comments on the draft permit and requested a meeting with NMED to "work through the significant technical and legal issues contained" in the draft permit. Attachment 1. As Cannon AFB explained in its comments on the draft permit for DP-873, the United States Air Force is engaged in a Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), 42 U.S.C. §§ 9601 *et. seq.* response addressing PFCs at Cannon AFB and several requirements of the permit may conflict with existing obligations under other permits and regulatory programs. *See* Petition, Exhibit 1, Response to Comments at 3, 4, 6, 7, 8, 9, 10, 11, 12, 13, 14, & 15. NMED's final version of DP-873, however, did not make substantive changes to provisions commented on by Cannon AFB. NMED also did not seek additional information for its consideration or schedule a meeting as requested by Cannon AFB.

Since the Air Force submitted its comments on the draft permit, the Air Force has made significant progress on the CERCLA response action. Affidavit of Christipher N. Gierke, Attachment 1 at 2. Specifically, the Air Force is now in the third phase of the CERCLA process, the Remedial Investigation (RI) phase. *Id.* at 4. Among other things, the work plan calls: for the installation of 26 new groundwater monitoring wells and groundwater sampling of new and existing (monitoring and agricultural irrigation) wells; a comprehensive soil investigation, consisting of surface and subsurface soil sampling associated with areas of interest; over 150 additional soil borings; surface water and sediment sampling associated with North Playa Lake; and installation of 12 suction lysimeters at source locations. *Id.* at 5.

While the RI is being performed, the Air Force is also performing a \$16.5+ million pilot study as part of a CERCLA Engineering Evaluation / Cost Analysis (EE/CA) consisting of a pump and treat system located on the Southeast corner of the base that contemplates placement of three, 200 gallon-per-minute groundwater extraction wells to capture PFC-impacted water. *Id.* at 7. The EE/CA will be informed by the data from the pilot study and will identify objectives of the removal action and evaluate the effectiveness, feasibility and costs of various alternatives that may satisfy remedial objectives. *Id.* at 8. Since the RI and EE/CA are to occur simultaneously, the EE/CA will serve to accelerate treatment, focus analysis of remedial alternatives and better inform final remedy decisions. *Id.* These actions bring the Air Force expenditures on the Cannon AFB CERCLA response to over \$32 million. *Id.* at 2.

As part of the Air Force's comprehensive response to PFCs at Cannon AFB, the Air Force ensures that no one on or off the installation is drinking water with concentration levels of perfluorooctane sulfonate (PFOS) or perfluorooctanoic acid (PFOA) above the U.S.

Environmental Protection Agency life-time health advisories for PFOS/PFOA attributable to the Air Force activities. *Id*.

NMED claims Cannon AFB "has not notified NMED of what actions they are taking under CERCLA and how such actions are in conflict with requirements of [DP-873]." Petition, Exhibit 1, Response to Comments at 3. NMED also includes its assessment of a report from a prior stage in the CERCLA (Site Inspection) process, stating what NMED believes such report does and does not "address." *Id.*, Response to Comments at 12. NMED further claims NMED "has not been included in the review and formulation" of the Air Force's Remedial Investigation Work Plan and that NMED "hasn't been provided with the resultant investigation report, assuming the report has been finalized." *Id.* Yet, NMED did not reach out to Cannon AFB to seek clarity or information before it issued DP-873.

Moreover, Cannon AFB's comments on the draft identified and explained how the permit may conflict with both the Air Force CERCLA response and existing regulatory requirements under other permits and programs. Petition, Exhibit 1, Response to Comments at 3, 4, 6, 7, 8, 9, 10, 11, 12, 13, 14, & 15. The CERCLA work plans and reports are part of the public administrative record. Cannon AFB has invited NMED to Cannon AFB's quarterly meetings discussing the CERCLA response. Attachment 1 at 8. Additionally, the Air Force provided the RI Work Plans to multiple persons at NMED. *Id.* at 4, 6. NMED's response indicated that they believed the work performed under the work plans should be under the purview of NMED Hazardous Waste Bureau (HWB). NMED did not indicate that they would not share the Air

¹ The United States and NMED are currently engaged in litigation in Federal District Court concerning a permit issued by NMED to Cannon Air Force Base under the New Mexico Hazardous Waste Act ("HWA"), NMSA §§ 74-4-1 *et seq.*, on December 19, 2018. That litigation is on-going. As such, Movant identifies NMED's correspondence with Movant on the RI Work Plan to demonstrate its awareness of the plan, not that Movant agrees with any

Force-provided information internally, nor did NMED recommend that Cannon AFB send the information to other persons within NMED.

DP-873 does not account for the Air Force's \$32 million CERCLA response and calls for actions that conflict with, and are duplicative of, what is already being performed. Specifically, DP-873 calls for 4 monitoring wells, sampling and a soil investigation related to PFCs. The Air Force is installing 26 monitoring wells in addition to the many wells already installed as part of early stages of the CERCLA process. The Air Force has already begun sampling efforts and well installation efforts are scheduled to start in less than a month. Attachment 1 at 7. The Air Force's CERCLA response includes a comprehensive soil investigation that addresses the areas and media sought by DP-873. Thus, the lack of consideration of these significant and relevant facts make it clear that the Air Force has not been afforded a reasonable opportunity for this information and evidence to be considered.

It is hard to imagine that a court would not find error in an agency failing to consider the current status of a more than \$32 million environmental response when issuing a permit that seeks potentially conflicting and duplicative requirements, especially in a situation such as this where the information was shared with the agency, the permittee asked for a meeting, and the permittee invited the agency to quarterly discussions on the current status of the environmental response. Thus, a reviewing court would likely find fault in the Commission's ultimate decision if these facts are not appropriately considered and might remand the case back to the Commission for further factfinding. *Bryant v. Lear Siegler Mgmt Servs. Corp.*, 853 P.2d 753, 762 115 N.M. 502, 511 (Ct. App. N.M. 1993); *Lucero v. Yellow Freight Sys.* 818 P.2d 863, 868,

statements made by NMED in that correspondence. Indeed, Movant expressly reserves all rights and claims with respect to the contested HWA permit.

112 N.M. 662, 667 (Ct. App. N.M. 1991) (noting that appellate courts remand on their own

initiative for further findings and conclusions when the record on appeal generates doubt

concerning the facts found or law applied by the lower tribunal).

In short, remand is the easy, clear and obvious way to allow the factfinder to properly

consider the significant and relevant information and allow resolution of these issues at the

lowest level. Otherwise, this permit review may be based on a decision that does not account for

significant and relevant facts. Thus, remand is proper because DP-873 and NMED's response to

comments reflect that the Air Force was not afforded a reasonable opportunity to have its

comments and evidence considered as part of DP-873.

WHEREFORE, based on the aforementioned reasons, and to allow NMED a reasonable

opportunity to submit comment or evidence, the Air Force submits remand is proper to allow

additional evidence to be received and accounted for.

Respectfully submitted,

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Date: 2022.01.28 13:09:28 -05'00'

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Counsel for Cannon AFB, United States Air Force

Attachment:

Affidavit of Christipher N. Gierke and 8 Attachments

CERTIFICATE OF SERVICE

I hereby certify that a true and correct copy of the foregoing OPPOSED MOTION FOR REMAND TO NEW MEXICO ENVIRONMENT DEPARTMENT was filed with the Hearing Clerk via electronic mail on January 28, 2022 with copies provided by electronic mail to the parties listed below.

DAVIS.JORDAN.FLE Digitally signed by DAVIS.JORDAN.FLETCHER.14538 TCHER.1453898071 Date: 2022.01.28 13:10:10 -05'00'

Jordan F. Davis, Captain, USAF Assistant Regional Counsel

Ms. Pamela Jones Hearing Clerk Water Quality Control Commission 1190 Saint Francis Drive, Suite S-22103 Santa Fe, NM 87502 Email: pamela.jones@state.nm.us

Mr. Christopher Atencio Assistant General Counsel New Mexico Environment Department Office of General Counsel Email: christopher.atencio@state.nm.us

1 STATE OF NEW MEXICO BEFORE THE WATER QUALITY CONTROL COMMISSION 2 IN THE MATTER OF THE PETITION FOR 3 A PERMIT REVIEW OF 4 DISCHARGE PERMIT RENEWAL AND MODIFICATION, DP-873 5 Docket No. WQCC 22-1 CANNON AIR FORCE BASE (AFB) 6 UNITED STATES AIR FORCE 7 Petitioners. 8 9 v. 10 NEW MEXICO ENVIRONMENT DEPARTMENT) 11 Respondents. 12 AFFIDAVIT OF CHRISTIPHER NEAL GIERKE 13 14 Pursuant to 28 U.S.C. § 1746, I declare as follows: 15 1. My name is Christipher Neal Gierke. I am over twenty-one years of age. I have 16 knowledge of, and am competent to testify regarding all the matters set forth herein. 17 2. I am a Biological Scientist/Remedial Program Manager with the Air Force Civil 18 Engineer Center aiding the AFCEC/CZOW Installation Support Section (ISS) at Cannon Air 19 Force Base (AFB). My unit address is 506 N. Air Commando Way, Cannon AFB, New Mexico, 20 88103. 21 3. I earned a Bachelor of Science in Nuclear Engineering Technology from 22 Excelsior College in 2014. 23 4. I have been working in the environmental investigation, remediation, and 24 operations field since 2017. I am responsible for administration and execution of the Defense 25 Environmental Restoration Program (DERP) at Cannon AFB from Feb 2017 to current. Prior to 26 that, I served as Program Manager at Cannon AFB as the Hazardous Material Manager. 27

Air Force CERCLA Response at Cannon AFB

- 6. The Air Force performed Comprehensive Environmental Response,
 Compensation, and Liability Act (CERCLA) investigations at Cannon AFB as part of the Air
 Force enterprise-wide efforts to ensure that no one on or off Air Force installations is drinking
 water with Perfluorooctane sulfonate (PFOS) or perfluorooctanoic acid (PFOA) above the U.S.
 Environmental Protection Agency life-time health advisories for PFOS/PFOA. To date the Air
 Force has spent \$32,324,869 towards the investigation and determining interim responses for the
 PFOS/PFOA impact at the Cannon AFB area.
- 7. In 2015, the Air Force conducted a CERCLA preliminary assessment at Cannon AFB, which culminated in a Final Preliminary Assessment Report For Perfluorinated Compounds at Cannon AFB, dated October 2015 (Cannon PA) (accessible at: AFCEC Administrative Record Site, accessible at: https://ar.afcec-cloud.af.mil/1).
- 8. The first step in this process was to identify the areas of the base where aqueous film forming foam (AFFF) may have been released into the environment and to conduct an initial assessment of possible migration pathways and receptors of potential contamination. Cannon PA at 1-2. The methods for the PA included reviewing of information and reports within the administrative record concerning environmental responses at Cannon AFB, and documents related to the Air Force's use of AFFF. *Id.* at 1-7. A site visit documented locations where AFFF has been used and culminated in interviews of relevant base personnel, including environmental management personnel; personnel from the fire department; and personnel working in maintenance and operation of the aircraft hangers. *Id.* The Cannon PA also sought to identify nearby populations and water supply well information through desktop data records searches. Twenty-one potential AFFF release areas were identified during the Cannon PA and scoping visit, resulting in fourteen areas being recommended for further investigation. Cannon PA, Table 4.1, pp 4-4 to 4-7.

¹ Select "Cannon AFB, NM" in Installation List. Then enter "1941" in the AR# box.

9. The next step was to develop a work plan specific to Cannon. Site Inspection of [AFFF] Release Areas, Environmental Programs, Worldwide Installation-Specific Work Plan (July 2017). The Site Inspection Work Plan was shared with New Mexico Environment Department (NMED), along with an invitation to NMED to contact designated Air Force personnel with any comments or questions(accessible at: AFCEC Administrative Record Site²). The Chief of NMED's Hazardous Waste Bureau responded with comments addressing additional sampling and data evaluation requirements. https://hwbdocuments.env.nm.gov/Cannon%20AFB/2017-09-

15%20Site%20Inspection%20of%20Aqueous%20Film%20Forming%20Release%20Areas.pdf

- 10. The Site Investigation focused on the fourteen areas identified by the Cannon PA and scoping visit. Cannon SI at 11 and Figure 2.3.1 (accessible at: AFCEC Administrative Record Site³). The sampling was conducted in November and December 2017 and the final report was issued in August 2018. *Id* at 34. The SI recommended that an expanded Site Investigation be conducted because the results indicated that there could be off-base migration of PFAs contamination.
- 11. The Air Force conducted the expanded site investigation to evaluate the potential for off-base mitigation of PFOS or PFOA. *See* Addendum 01 to Cannon SI (March 2019) (Cannon Expanded SI) (accessible at: AFCEC Administrative Record Site⁴). Three of the Air Force's sample locations detected concentrations of PFOS/PFOA above the LHA values. Cannon Expanded SI at 15. Consistent with Department of Defense (DoD) and Air Force policy, the Air Force CERCLA response ensures that no one is drinking water with concentration levels of PFOS/PFOA above the LHAs. Specifically, for all three locations, the Air Force first offered to provide bottled water (temporary), followed by permanent solutions for human drinking water

² Select "Cannon AFB, NM" in Installation List. Then separately enter "1904" and "1905" in the AR# box.

³ Select "Cannon AFB, NM" in Installation List. Then enter "1938" in the AR# box.

 $^{^4}$ Select "Cannon AFB, NM" in Installation List. Then enter "1940" in the AR# box.

consumption at the locations where the owners accepted such temporary and permanent solutions.

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- 12. To increase communication with elected officials, NMED, EPA, and the local community, AFCEC implemented ongoing Quarterly Public Updates to provide an update on the status of the investigation and provide a venue for involvement by all. Four such meetings have been held, and NMED has received invitation to all meetings.
- 13. The next stage in the CERCLA process is the remedial investigation (RI). The Air Force awarded a contract for a RI in August 2020. The Primary objective of the RI is to define the nature and extent of the PFOS/PFOA in environmental media on and off the installation. Under the RI contract, the first year of performance is primarily devoted to developing comprehensive work plans that are presented for (thirty-day) review and comment by state and federal regulators. The Air Force developed a work plan for the RI. See Final [AFFF] Release Areas Phase I [RI] Work Plan (RI Work Plan) (accessible at: AFCEC Administrative Record Site)⁵. Cannon AFB shared a draft of the RI Work Plan with NMED and U.S. Environmental Protection Agency (EPA) on June 21, 2021. Atch. 1. On July 21, 2021, NMED indicated to Cannon AFB that NMED will finalize a response and transmit it shortly to Cannon AFB. Atch 2. On August 16, 2021, NMED submitted a response to Cannon AFB's RI Work Plan, requesting a payment of a fee assessment. Atch. 3. The next day, NMED submitted a response claiming that the Air Force's investigation is not to be performed under CERCLA, and that NMED was to treat the work plan as if it were a submission pursuant to Cannon AFB's Hazardous Waste Act permit. Atch. 4. On September 13, 2021, Cannon AFB responded to NMED's August 16 & 17, 2021 correspondence. Atch 5. On December 15, 2021, NMED issued a response to the RI work plan. Atch. 6.
- 14. The RI Work Plan builds off the information from the previous CERCLA stages.⁶ It identifies potential source areas, information about their uses, and findings from prior

⁵ Select "Cannon AFB, NM" in Installation List. Then enter "2078" in the AR# box. The Final RI Work Plan incorporates comments received from EPA.

⁶ A detailed explanation of all activities previously investigated and findings of all these activities

investigation of those areas, area-specific fate and transport analysis, potential exposure scenarios for each of these areas. RI Work Plan at 3-7 – 3-16. Among other things, the work plan calls: for the installation of 26 new groundwater monitoring wells; groundwater sampling of sampling of new and existing (monitoring wells and agricultural irrigation) wells; surface and subsurface soil sampling associated with areas of interest, performed in stages, including 153 additional soil borings; surface water and sediment sampling associated with North Playa Lake; and installation of 12 suction lysimeters at source locations. *Id.* at 1-2, 4-5 – 4-12.

- of the RI, 11 are proposed to be located on base, and 15 are proposed to be located off-base. *Id.* at 4-5. The on-base locations include 3 wells associated with the North Playa Lake, golf course and irrigation areas (MW-P001 MW-P003); 23 wells (8 on-base and 15 off-base) associated with the former Fire Training Areas (FTA) No. 3 & 4. *Id.* The construction details are explained and outlined in Table 4-2 of the RI Work Plan. *Id.* at 4-6, 4-7 & Table 4-2. The proposed locations of the monitoring wells are illustrated in Figures 4-1 4-3 of the R1 Work Plan. *Id.* at 4-5, Figures 4-1 4-3 (Figures 4-2, 4-3, 4-5, 4-6, 4-7 & 4-8 are included as Atch 7.
- 16. The soil investigation will address soil and subsurface soil and focus on seven areas of interest: North Playa Lake, the golf course and irrigation areas (16 soil borings, whose location is to be determined by surface soil sampling at 40 locations); the former sewage lagoons (20 soil borings); the Active FTA, Former FTA No. 3 & Former FTA No. 4 (64 soil borings); Hangar 109, Hangars 119 and 133 (53 soil borings). RI Work Plan at 4-8, Table 4-4 and Figure 4-5. The soil investigation will collect soil samples, which will be analyzed to delineate the vertical and lateral extent of PFAS in soil and evaluate if PFAS source areas exist. *Id*. Composite soil samples will be collected to assess the soil physiochemical parameters to evaluate the potential leaching of PFAS from vadose zone soils to estimate the magnitude of leaching. *Id*. The proposed surface and subsurface soil sampling depths, approximate soil boring diameters, boring methods and locations are detailed in Table 4-4 of the RI Work Plan.

in the prior CERCLA phases is not included for purposes of streamlining this affidavit. Further explanation can be provided, if needed.

The proposed soil sampling locations are presented in Figures 4-1-4-8 and the rationale for these locations is provided in Table 4-4 of the RI Work Plan. *Id.* The soil sampling methods and technical specifications, and details about the specific number of wells for each area are explained in RI Work Plan. *Id.* at 4-9, 4-10.

- 17. The RI Work Plan also calls for surface water and sediment sampling at 12 locations in North Playa Lake. RI Work Plan at 4-10. The proposed sampling locations are illustrated in Figure 4-2 and rationale for these locations is provided in Table 4-5 of the RI Work Plan. The sampling methodology is outlined in the RI Work Plan and an attachment thereto. *Id.* at 4-10 4-11.
- 18. The RI Work Plan also calls for the installation of 12 lysimeters in three areas of interest: North Playa Lake, Former FTA No. 3 and Former FTA No. 4. RI Work Plan at 4-11 & Table 4-6. The lysimeters will be installed to evaluate whether PFAS in soil are leaching into the pore water and could potentially impact groundwater. *Id.* The RI Work Plan outlines the specific locations for the lysimeters, descriptions of the lysimeters, how they work, proposed sample depths and installation procedures for the lysimeters. *Id.* at 4-11 4-13. The lysimeters will be used to perform pressure measurements and pore water sample collections, at specified intervals and as per the procedures outlined in the RI. *Id.* at 4-13. The exact locations of the lysimeters will be selected after the subsurface soil sampling is completed. RI Work Plan at Table 4-6.
- sampling of North Playa Lake, the golf course and irrigation areas; surface water and sediment sampling associated with North Playa Lake; and off-base groundwater sampling and associated surface soil sampling. RI Work Plan at 4-3. The off-base groundwater sampling will be used to select the off-base monitoring well locations. *Id.* The next event will be: completion of on-base soil borings; sampling and monitoring well installation; off-base monitoring well installation; on-and off-base monitoring well sampling. The soil boring sampling will be used to select lysimeter locations. *Id.* The next planned event is the installation of lysimeters and collection of pore water samples.

20. The Air Force has already commenced work under the RI Work Plan. The Air Force integrated EPA's comments on the work plan. The Air Force started with seeking needed right of entry agreements for off-base locations. This began on October 20, 2021 and is still ongoing. Next, groundwater has already been sampled under the RI Work Plan at 40 off-base irrigation wells, and the data review for the placement of off-base wells is currently under analysis. 80 off-base soil sampling locations are scheduled to begin on February 1, 2022, with the installation of on-base monitoring wells scheduled to begin February 21, 2022. Current plans call for installation of monitoring wells associated with North Playa Lake, golf course and irrigation areas (MW-P001 – MW-P003) first. The Air Force plans to install the remaining wells between April 2022 and February 2023. But, the timing and location of these wells will need to account for private-landowner approvals. Professional surveys are to be performed post-construction of the wells. *Id.* at 4-7.

21. The Air Force also secured funding for a CERCLA Engineering Evaluation / Cost Analysis (EE/CA) – Pilot Study to address PFOS/PFOA impacts in and around Cannon AFB as part of a potential CERCLA Non-Time Critical Removal Action (NTCRA) (e.g. an interm action conducted during an ongoing remedial effort). A task order for the pilot study and EE/CA was awarded on May 27, 2021 for \$16,592,265. The Air Force plans are informed by an approximately \$1.8 million dollar ground flow study performed by the United States Geologic Survey in fiscal years 2020 and 2021. As part of the pilot study, the existing groundwater well monitoring network was sampled in June 2021. The pilot study will be a pump and treat system that will be located on the Southeast corner of the base. The treatment building is to be located north of and adjacent to what is referred to landfill #5. The pilot study contemplates placement of three, 200 gallon per minute (gpm) groundwater extraction wells to capture PFAS-impacted water. The extraction well capture zone calculations were based on existing information from the production wells across Cannon. The design plans contemplate increasing the scale of the system and other treatment options post-pilot study. EE/CA is a required component of the

⁷ Select "Cannon AFB, NM" in Installation List. Then enter "2075" and "2072" in the AR# box.

CERCLA process to satisfy the environmental review requirements for NTCRAs. The EE/CA will be informed by the data from the pilot study and will identify the objectives of the removal action and evaluates the effectiveness, feasibility and cost of various alternatives that may satisfy remedial objectives. Since the pilot study and the EE/CA are to occur while the RI is performed, the EE/CA will serve to accelerate treatment of PFAS-impacted groundwater, focus analysis of remedial alternatives, and better inform decisions on final remedies selected. All of this information has been included in the Air Force's quarterly meetings to the public to which NMED has been invited and this information is posted on Cannon AFB's website. Regulators, including the EPA, will also have an opportunity to provide feedback during the EE/CA process.

22. Part of the Air Force's approach has been to prevent any further releases of AFFF containing PFOS/PFOA by replacing legacy AFFF with a more environmentally-friendly version, retrofitting trucks and hangar systems and not using AFFF except for emergencies, and even then, cleaning it up immediately.

Discharge Permit Renewal and Modification, DP-873

- 23. On February 8, 2021, NMED issued a draft permit and initiated a public notice and comment period. In May 2021, Cannon AFB timely submitted detailed comments on the draft permit, which, among other things, included then-current detailed information about the Air Force's CERCLA response, explaining why permit conditions were unnecessary because of the CERCLA response and other requirements under other permits and programs, as well as outlining legal defenses available to Cannon AFB. Atch 8. Cannon AFB also requested a meeting with NMED to "work through the significant technical and legal issues contained" in the draft permit. Atch 8.
- 24. NMED issued the final Discharge Permit Renewal and Modification Permit, DP-873 on December 15, 2021, accompanied by NMED's responses to Petitioner's comments.
 NMED issued Discharge Permit Renewal and Modification, DP-873 on December 15, 2015.
- 25. To my knowledge, despite Cannon AFB's request, NMED has not sought to schedule a meeting to work through the significant technical and legal issues raised in Cannon AFB's comments on the draft permit.

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- 26. Air Force personnel are willing to meet with NMED, and otherwise provide NMED information about the Air Force's CERCLA response. Air Force personnel are also willing to work with NMED to resolve concerns and potential conflicts between about DP-873's and the Air Force's CERCLA response. The Air Force remains hopeful that technical discussions with NMED may resolve any issues related to these and all other contested Conditions.
 - 27. I declare under penalty of perjury that the foregoing is true and correct.

Executed this ²⁷ day of January, 2022.

CHRISTIPHER NEAL GIERKE
Biological Scientist/Remedial Project Manager
Air Force Civil Engineer Center

DAVIS, JORDAN F Capt USAF AFR/JAOE-ER

From: GIERKE, CHRISTIPHER N GS-13 USAF AFCEC 27 SOCES/AFCEC/CZOW

<christipher.gierke@us.af.mil>

Sent: Tuesday, January 11, 2022 3:46 PM

To: PIGNATARO, JOEL F GS-13 USAF AFSOC 27 SOCES/CEIE; PEDRONCELLI, TOBY M GS-12

USAF AFCEC AFCEC/CZOW

Subject: FW: Cannon AFB Draft Remedial Investigation Work Plan & QAPP 30 Day Regulatory

Review

Attachments: Signed Transmittal Letter - NMED.pdf

V/R Christipher Gierke Remedial Project Manager

AFCEC/CZOW

Comm: 575-904-6744 DSN: 640-6744

https://www.cannon.af.mil/Environmental/

From: GIERKE, CHRISTIPHER N GS-12 USAF AFCEC 27 SOCES/AFCEC/CZOW

Sent: Monday, June 21, 2021 12:45 PM **To:** ricardo.maestas@state.nm.us

Cc: Benjamin Wear <Benjamin.Wear@state.nm.us>; Dave Cobrain <dave.cobrain@state.nm.us>; Gabriel Acevdo <Gabriel.Acevedo@state.nm.us>; SEGURA, CHRISTOPHER G GS-14 USAF AFCEC/CZO <christopher.segura.2@us.af.mil>

Subject: Cannon AFB Draft Remedial Investigation Work Plan & QAPP 30 Day Regulatory Review

Good Afternoon.

The Cannon AFB Remedial Investigation was awarded on 27 August 2020. The draft Remedial Investigation Work Plan and QAPP have been developed and are being submitted for a 30-day regulatory review period. A transmittal letter along with 2 CDs containing the reference documents were mailed via FedEx today, with an expected delivery date no later than June 23, 2021. The regulatory review period will close on 23 July 2021. Attached is the transmittal letter for your quick reference with contact information to submit comments. Due to the large files sizes, an electronic copy of the referenced documents will be provided via DoD Safe immediately following this correspondence to ensure receipt of the documents and to help expedite the review process. If you have any questions or concerns, please feel free to contact me at your earliest convenience.

V/R

Christipher Gierke Remedial Project Manager

AFCEC/CZOW

Comm: 575-904-6744 DSN: 640-6744 https://www.cannon.af.mil/Environmental/



DEPARTMENT OF THE AIR FORCE AIR FORCE CIVIL ENGINEER CENTER

June 21, 2021

Christipher N. Gierke Remedial Project Manager AFCEC/CZO 506 N. Air Commando Way Cannon AFB, NM

Mr. Ricardo Maestas Acting Chief, Hazardous Waste Bureau New Mexico Environment Department 2905 Rodeo Park Drive East, Bldg. I Santa Fe NM 87505-6313

Dear Mr. Maestas

The Air Force is providing the Cannon AFB PFOS/PFOA Remedial Investigation Work Plan for your review and comment. This document describes the perfluorooctane sulfonate/perfluorooctanoic acid (PFOS/PFOA) installation-specific process for identifying and evaluating the nature and extent of PFOS/PFOA impact located downgradient of the installation. Pursuant to the provisions of the Defense Environmental Restoration Program, the Air Force investigation and mitigation actions for PFOS/PFOA are guided under the Comprehensive Environmental Restoration Compensation and Liability Act (CERCLA).

This review period is for 30 days following the CERCLA process, and will ensure the investigation proceeds forward expeditiously. The goal is to commence field work as soon as possible with the finalization of the work plan being the last step to starting field activities. The Air Force is aggressively moving forward to obtain the required data to evaluate and advance clean-up efforts to address PFOS/PFOA impacts.

Please submit comments to the above mailing address and email a copy to christipher.gierke@us.af.mil. If you have any questions, please contact me at (575) 904-6744 or email christipher.gierke@us.af.mil.

Sincerely

C.N. GIERKE, GS-12, AFCEC Remedial Project Manager

DAVIS, JORDAN F Capt USAF AFR/JAOE-ER

From: SEGURA, CHRISTOPHER G GS-14 USAF AFCEC/CZO <christopher.segura.2@us.af.mil>

Sent: Friday, January 14, 2022 11:04 AM

To: PIGNATARO, JOEL F GS-13 USAF AFSOC 27 SOCES/CEIE

Subject: FW: NMED Comments for CAFB PFOS/PFOA Remedial Investigation Work Plan

Signed By: christopher.segura.2@us.af.mil

From: GIERKE, CHRISTIPHER N GS-12 USAF AFCEC 27 SOCES/AFCEC/CZOW <christipher.gierke@us.af.mil>

Sent: Monday, August 2, 2021 7:21 AM

To: SEGURA, CHRISTOPHER G GS-14 USAF AFCEC/CZO <christopher.segura.2@us.af.mil> **Subject:** FW: NMED Comments for CAFB PFOS/PFOA Remedial Investigation Work Plan

Should I email him back and let him know I haven't received anything?

From: Catechis, Chris, NMENV < Chris.Catechis@state.nm.us>

Sent: Tuesday, July 27, 2021 10:15 AM

To: GIERKE, CHRISTIPHER N GS-12 USAF AFCEC 27 SOCES/AFCEC/CZOW < christipher.gierke@us.af.mil **Subject:** [Non-DoD Source] NMED Comments for CAFB PFOS/PFOA Remedial Investigation Work Plan

Hello Mr. Gierke,

I wanted to reach to you regarding the requested New Mexico Environment Department (NMED) review and comment for the *Cannon AFB PFOS/PFOA Remedial Investigation Work Plan*. NMED is finalizing a response and will be transmitting to you shortly. Should you have any questions, please do not hesitate to reach out to me.

Thanks,

Christopher S. Catechis, Acting Director
Resource Protection Division
New Mexico Environment Department
1190 St. Francis Drive | Santa Fe, New Mexico 87505
(C) 505.469-6521
www.env.nm.gov | chris.catechis@state.nm.us



Confidentiality Notice: This e-mail, including all attachments is for the sole use of the intended recipient(s) and may contain confidential and privileged information. Any unauthorized review, use, disclosure or distribution is prohibited unless specifically provided under the New Mexico Inspection of Public Records Act or the New Mexico Environment Department. If you are not the intended recipient, please contact the sender and destroy all copies of this message.

DAVIS, JORDAN F Capt USAF AFR/JAOE-ER

From: GIERKE, CHRISTIPHER N GS-13 USAF AFCEC 27 SOCES/AFCEC/CZOW

<christipher.gierke@us.af.mil>

Sent: Tuesday, January 11, 2022 3:52 PM

To: PIGNATARO, JOEL F GS-13 USAF AFSOC 27 SOCES/CEIE; PEDRONCELLI, TOBY M GS-12

USAF AFCEC AFCEC/CZOW

Subject: FW: Fee Assessment Letter to Colonel Taylor

Attachments: CAFB 2021- Fee Assessment- Draft Aqueous Film-Forming Foam Release Areas Phase 1

Remedial Investigations Work Plan- HWB-CAFB-21-002.pdf

V/R Christipher Gierke Remedial Project Manager AFCEC/CZOW

Comm: 575-904-6744 DSN: 640-6744

https://www.cannon.af.mil/Environmental/

From: Martinez, Cynthia, NMENV < cynthia.martinez1@state.nm.us>

Sent: Monday, August 16, 2021 8:59 AM

To: GIERKE, CHRISTIPHER N GS-13 USAF AFCEC 27 SOCES/AFCEC/CZOW <christipher.gierke@us.af.mil>

Cc: Cobrain, Dave, NMENV <dave.cobrain@state.nm.us>; Acevedo, Gabriel, NMENV <Gabriel.Acevedo@state.nm.us>; Sanchez, Jessi, NMENV <Jessi.Sanchez3@state.nm.us>; SOTO-LORENZO, CARLOS J GS-14 USAF AFSOC 27 SOCES/CCD <carlos.soto-lorenzo@us.af.mil>; JENNINGS, SARAH N GS-12 USAF AFSOC 27 SOCES/CEIE <sarah.jennings.1@us.af.mil>; BURGOON, JONATHAN J CTR USAF AFSOC 27 SOCES/27 SOCES/CZOW <jonathan.burgoon.ctr@us.af.mil>

Subject: [Non-DoD Source] Fee Assessment Letter to Colonel Taylor

Good Morning,
Please see attachment.

Cynthia Martinez New Mexico Environment Department Hazardous Waste Bureau 2905 Rodeo Park Drive East, Bldg.1 Santa Fe, New Mexico 87505-6313



Certified Mail - Return Receipt Requested

August 16, 2021

Colonel Terence G. Taylor Commander, 27th Special Operations Wing 100 Air Commando Way, Suite 100 Cannon Air Force Base New Mexico 88103-5214

RE:

FEE ASSESSMENT

DRAFT AQUEOUS FILM-FORMING FOAM RELEASE AREAS PHASE I REMEDIAL

INVESTIGATIONS WORK PLAN

CANNON AIR FORCE BASE, NEW MEXICO

EPA ID #NM7572124454

HWB-CAFB-21-002

Dear Colonel Taylor:

The New Mexico Environment Department (NMED) has received Cannon Air Force Base's submittal titled *Draft Aqueous Film-Forming Foam Release Areas Phase I Remedial Investigations Work Plan* dated June 21, 2021. NMED has accepted the submittal for review in accordance with the New Mexico Hazardous Waste Permit and Corrective Action Fee Regulations, 20.4.2.201.B(2) NMAC. NMED has assessed the document review fee as an Investigation Work Plan for the purpose of billing. The applicable review fees are listed in Table 5 of 20.4.2.208 NMAC. NMED will review the submittal after the appropriate fees have been received. The fee invoice is attached to this letter. Upon receipt of the payment, NMED will initiate a technical review of the submittal in accordance with 20.4.2.201.B(3) NMAC.

Payment is due within sixty (60) calendar days from the date that you receive the invoice in accordance with 20.4.2.301.C NMAC. If you disagree with the fee assessed, you must notify NMED in writing, at the address below, of the intent to appeal the invoice under the provisions of 20.4.2.302.A NMAC.

If payment is by check, then you must provide the invoice number on the check. If payment is transmitted electronically, then you must submit a letter to Mr. Dave Cobrain, NMED Hazardous Waste Bureau, indicating the invoice number, payment amount, and the assessed activity prior to transferring funds.

Col. Taylor

August 16, 2021

Page 2

If you have any questions regarding this letter, please contact Gabriel Acevedo at (505) 690-5760.

Sincerely,

Dave Cobrain

Program Manager

Hazardous Waste Bureau

cc:

J. Sanchez, NMED HWB

G. Acevedo, NMED HWB

C. Gierke, CAFB

C. Soto-Lorenzo

S. Jennings

J. Burgoon

File:

CAFB 2021 and Reading



New Mexico Environment Department Hazardous Waste Bureau

Cannon Air Force Base 27th Special Operations Wing 110 E. Alison Ave, Ste. 1098 Cannon Air Force Base, NM 88103-5217 Attn: Colonel Terence G. Taylor

8/16/2021

Invoice # - HWB-CAFB-21-002

CAFB-Draft Aqueous Film-Forming Foam Release Areas Phase I Remedial Investigations Work Plan, May 2021

Quantity	Item	Item Cost	Total Cost
1	Investigation Work Plan (RFI Work Plan) - 1st Unit	\$15,000.00	\$15,000.00
		Total Fees	\$15,000.00
		Extra Units (6)	\$6,000.00
		Pay This Amount	\$21,000.00

Make Checks Payable to: NMED/HWB

Mail Checks and Invoice to:

New Mexico Environment Department, HWB Attn: Bureau Financial Manager

2905 Rodeo Park Drive East, Bldg 1 Santa Fe, NM 87505



MICHELLE LUJAN GRISHAM
GOVERNOR

JAMES C. KENNEY
CABINET SECRETARY

Certified Mail - Return Receipt Requested

August 17, 2021

Colonel Terance G. Taylor Commander, 27th Special Operations Wing 100 Air Commando Way, Suite 100 Cannon Air Force Base New Mexico 88103-5214

RE: DRAFT AQUEOUS FILM-FORMING FOAM RELEASE AREAS PHASE I REMEDIAL INVESTIGATION WORK PLAN MAY 2021 CANNON AIR FORCE BASE, NEW MEXICO

EPA ID #NM7572124454 HWB-CAFB-21-002

Dear Colonel Taylor:

The New Mexico Environment Department (NMED) is in receipt of the Cannon Air Force Base (Permittee) *Draft Aqueous Film-Forming Foam Release Areas Phase I Remedial Investigation Work Plan Cannon Air Force Base Clovis, May 2021* (RI WP) with cover letter dated June 21, 2021. Electronic copies of the RI WP on disc were delivered to the NMED Hazardous Waste Bureau offices on June 23, 2021.

The cover letter for the submittal states, "[p]ursuant to the provisions of the Defense Environmental Restoration Program, the Air Force investigation and mitigation actions for PFOS/PFOA are guided under the Comprehensive Environmental Restoration Compensation and Liability Act (CERCLA)." NMED does not agree that this investigation of per-and polyfluorinated alkyl substances (PFAS) are subject to review under CERCLA; this investigation is subject to regulation under the Resource Conservation and Recovery Act (RCRA) and the New Mexico Hazardous Waste Act (HWA). As such, Cannon Air Force Base must conduct the investigation in accordance with the requirements specified in the Cannon Air Force Base RCRA Permit EPA ID # NM7572124454 (RCRA Permit) issued in December 2018. NMED will conduct a review of the RI WP consistent with the RCRA Permit and provide approval, disapproval, or approval with modifications in accordance with Section 1.17.1 of the Permit.

Col. Taylor August 17, 2021 Page 2

The cover letter also states, "[t]his review period is for 30 days following the CERCLA process." As stated above, this investigation of PFAS at and off-site from Cannon Air Force Base is not subject to CERCLA; rather, it is subject to the requirements of RCRA and the HWA. Therefore, NMED will conduct its review of the RI WP in accordance with the timeframes specified in 20.4.2 NMAC as stated in Section 1.17.1 of the RCRA Permit and more specifically as specified in 20.4.2.7.I(4), 20.4.2.201.B(2)(a) and (3), 20.4.2.208 and 20.4.2.301.C NMAC.

While the NMED is encouraged the United State Air Force (USAF) is taking responsibility for PFAS contamination at and off-site from Cannon Air Force Base, any work performed prior to NMED approval is at its own risk. Pursuant to RCRA and the HWA, NMED may require different and/or additional work beyond that proposed by USAF in the RI WP.

If you have any questions regarding this letter, please contact Dave Cobrain at (505) 476-6055.

Sincerely,

Ricardo Maestas

Digitally signed by Ricardo

Maestas

Date: 2021 08 17 13:33:41 - 6

Date: 2021.08.17 13:33:41 -06'00'

Ricardo Maestas Acting Chief Hazardous Waste Bureau

cc: C. Catechis, NMED RPD

C. Atencio, NMED OGC

D. Cobrain, NMED HWB

G. Acevedo, NMED HWB

L. King, EPA Region 6 (6LCRRC)

J. Pignataro, CAFB

C. Gierke, CAFB

C. Chavez, CAFB

File: Reading and CAFB 2021

DAVIS, JORDAN F Capt USAF AFR/JAOE-ER

From: GIERKE, CHRISTIPHER N GS-13 USAF AFCEC 27 SOCES/AFCEC/CZOW

<christipher.gierke@us.af.mil>

Sent: Tuesday, January 11, 2022 3:47 PM

To: PIGNATARO, JOEL F GS-13 USAF AFSOC 27 SOCES/CEIE; PEDRONCELLI, TOBY M GS-12

USAF AFCEC AFCEC/CZOW

Subject: FW: USAF response letters to NMED

Attachments: Response to Ricardo Maestas.pdf; Response to Dave Cobrain.pdf; CAFB 2021- Fee

Assessment- Draft Aqueous Film-Forming Foam Release Areas Phase 1 Remedial Investigations Work Plan- HWB-CAFB-21-002.pdf; 2021-08-17 RPD HWB CAFB RI Work

Plan Response.pdf

V/R

Christipher Gierke

Remedial Project Manager

AFCEC/CZOW

Comm: 575-904-6744 DSN: 640-6744

https://www.cannon.af.mil/Environmental/

From: GIERKE, CHRISTIPHER N GS-13 USAF AFCEC 27 SOCES/AFCEC/CZOW

Sent: Monday, September 13, 2021 11:38 AM

To: ricardo.maestas@state.nm.us; Dave Cobrain <dave.cobrain@state.nm.us>

Cc: Catechis, Chris, NMENV < Chris.Catechis@state.nm.us>; SEGURA, CHRISTOPHER G GS-14 USAF AFCEC/CZO

<christopher.segura.2@us.af.mil>; Acevedo, Gabriel, NMENV <Gabriel.Acevedo@state.nm.us>

Subject: USAF response letters to NMED

Good Morning Mr. Maestas, and Mr. Cobrain,

Please find attached the USAF response letters to the NMED correspondence received on August 16, 2021 and August 17, 2021 (attached for your quick reference). The letters have been mailed and I fully expected NMED to receive the hardcopies no later than Wednesday. If you have any questions or concerns, please feel free to reach out to me at your earliest convenience.

V/R

Christipher Gierke Remedial Project Manager

AFCEC/CZOW

Comm: 575-904-6744 DSN: 640-6744 https://www.cannon.af.mil/Environmental/



DEPARTMENT OF THE AIR FORCE 27TH SPECIAL OPERATIONS WING (AFSOC) CANNON AIR FORCE BASE NEW MEXICO

10 September 2021

Colonel Terence G. Taylor, USAF Commander 27th Special Operations Wing 100 Air Commando Way Cannon Air Force Base NM 88103

Mr. Ricardo Maestas Acting Chief, Hazardous Waste Bureau New Mexico Environment Department 2905 Rodeo Park Drive East, Building 1 Santa Fe NM 87505-6313

RE: Draft Aqueous Film-Forming Foam Release Areas Remedial Investigation Work Plan, May 2021, Cannon Air Force Base, New Mexico

Dear Mr. Maestas

This letter responds to the attached letter, dated August 17, 2021, in which the Hazardous Waste Bureau disagreed with the process through which the Air Force is investigating PFOS and PFOA released at Cannon Air Force Base through use of PFOS and PFOA-containing aqueous film-forming (AFFF) during firefighting training and emergency response activities.

The Air Force's response to the release of PFOS and PFOA through AFFF has been governed and guided by the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA, 42 U.S.C. §§ 9601-9675), the Defense Environmental Restoration Program statute (DERP, 10 U.S.C. §§ 2700-2711), and the National Contingency Plan (NCP, 40 C.F.R. Part 300) since it began with a Preliminary Assessment in October 2015. As you are likely aware, the Air Force's PFOS/PFOA CERCLA response at Cannon is implicated in two lawsuits the Air Force (through the U.S. Department of Justice) and the State of New Mexico currently are litigating in State and Federal courts. Until the issues being litigated are resolved, the Air Force will continue responding to PFOS and PFOA pursuant to CERCLA and the NCP rather than the federal Resource Conservation and Recovery Act (RCRA), the New Mexico Hazardous Waste Act (HWA), and the contested HWA permit issued to Cannon AFB.

The CERCLA and RCRA remediation processes are different but the end result is the same: addressing unacceptable risk to human health and the environment posed by the release of hazardous substances, pollutants, and contaminants to the environment. As the Air Force continues its CERCLA response to the release of PFOS and PFOA at Cannon, we will look for more opportunities to keep NMED informed of what's going on and provide the Department more opportunities to shape our response. Inviting NMED to review and comment on the Remedial Investigation work plan is an example of such effort.

The Air Force values our partnership with NMED and hope to continue collaborating during our PFAS investigation in the best interest of the community and the environment. If you have any questions or concerns, please contact Mr. Christipher Gierke, AFCEC Remedial Project Manager, at (575) 904-6744 or email christipher.gierke@us.af.mil.

Sincerely

TERENCE G. TAYLOR, Colonel, USAF

Commander

Attachment:

Hazardous Waste Bureau invoice, August 16, 2021

cc:

Hazardous Waste Bureau (Mr. Dave Cobrain) AFCEC/CZOW (Mr. Chris Gierke)



DEPARTMENT OF THE AIR FORCE 27TH SPECIAL OPERATIONS WING (AFSOC) CANNON AIR FORCE BASE NEW MEXICO

10 September 2021

Colonel Terence G. Taylor, USAF Commander 27th Special Operations Wing 100 Air Commando Way Cannon Air Force Base NM 88103

Mr. Dave Cobrain
Program Manager, Hazardous Waste Bureau
New Mexico Environment Department
2905 Rodeo Park Drive East, Building 1
Santa Fe NM 87505-6313

RE: Draft Aqueous Film-Forming Foam Release Areas Remedial Investigation Work Plan, May 2021, Cannon Air Force Base, New Mexico

Dear Mr. Cobrain

The Air Force is in receipt of the attached fee assessment letter dated August 16, 2021. For the reasons stated below, the Air Force must decline payment to the Hazardous Waste Bureau for review of the draft work plan the Air Force invited the New Mexico Environment Department (NMED) to comment on regarding the Air Force's planned remedial investigation of PFOS, PFOA, and some other PFAS.

The Air Force's response to PFAS is being done pursuant to the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA, 42 U.S.C. §§ 9601-9675), the Defense Environmental Restoration Program statute (DERP, 10 U.S.C. §§ 2700-2711) and the National Contingency Plan (NCP, 40 CFR Part 300).). It is not being done pursuant to the Resource Conservation and Recovery Act (RCRA, 42 U.S.C. §§ 6901-6992k), the New Mexico Hazardous Waste Act (NMHWA, Sections 74-4-1 to 74-4-14 NMSA 1978), or the Cannon Air Force Base's hazardous waste permit. Consequently, the Air Force did not submit the Remedial Investigation Work Plan pursuant to Cannon's Hazardous Waste Permit or the State's hazardous waste management regulations. In addition, Cannon's Hazardous Waste Permit and the New Mexico Hazardous Waste Permit and Corrective Action Fee Regulations are not triggered by the Air Force request. Accordingly, the Air Force will not render payment to the Hazardous Waste Bureau to comment on the Air Force's Remedial Investigation Work Plan.

The Air Force provided the *Cannon AFB PFOS/PFOA Remedial Investigation Work Plan* to NMED as a courtesy and in a good faith effort to give NMED more awareness and involvement in the Air Force's CERCLA investigation. In accordance with the CERCLA/NCP process, the Air Force provided the referenced work plan to NMED for comment on June 23,

2021 with a 30-day comment period ending on July 23, 2021. The Air Force has provided NMED further opportunity to comment by extending the comment period to August 16, 2021. However, the Air Force has not received comments from NMED to date and is planning on finalizing the work plan in the near future to advance cleanup efforts.

We value our partnership with NMED and hope to continue collaborating during our PFAS investigation in the best interest of the community and the environment. If you have any questions or concerns, please contact Mr. Christipher Gierke, AFCEC Remedial Project Manager, at (575) 904-6744 or email christipher.gierke@us.af.mil.

Sincerely

TERENCE G. TAYLOR, Colonel, USAF

Commander

Attachment:

Hazardous Waste Bureau invoice, August 16, 2021

cc:

Hazardous Waste Bureau (Mr. Ricardo Maestas) Hazardous Waste Bureau (Mr. Gabe Acevedo) AFCEC/CZOW (Mr. Chris Gierke)



Certified Mail - Return Receipt Requested

August 16, 2021

Colonel Terence G. Taylor Commander, 27th Special Operations Wing 100 Air Commando Way, Suite 100 Cannon Air Force Base New Mexico 88103-5214

RE:

FEE ASSESSMENT

DRAFT AQUEOUS FILM-FORMING FOAM RELEASE AREAS PHASE I REMEDIAL

INVESTIGATIONS WORK PLAN

CANNON AIR FORCE BASE, NEW MEXICO

EPA ID #NM7572124454

HWB-CAFB-21-002

Dear Colonel Taylor:

The New Mexico Environment Department (NMED) has received Cannon Air Force Base's submittal titled *Draft Aqueous Film-Forming Foam Release Areas Phase I Remedial Investigations Work Plan* dated June 21, 2021. NMED has accepted the submittal for review in accordance with the New Mexico Hazardous Waste Permit and Corrective Action Fee Regulations, 20.4.2.201.B(2) NMAC. NMED has assessed the document review fee as an Investigation Work Plan for the purpose of billing. The applicable review fees are listed in Table 5 of 20.4.2.208 NMAC. NMED will review the submittal after the appropriate fees have been received. The fee invoice is attached to this letter. Upon receipt of the payment, NMED will initiate a technical review of the submittal in accordance with 20.4.2.201.B(3) NMAC.

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Col. Taylor

August 16, 2021

Page 2

If you have any questions regarding this letter, please contact Gabriel Acevedo at (505) 690-5760.

Sincerely,

Dave Cobrain

Program Manager

Hazardous Waste Bureau

cc:

J. Sanchez, NMED HWB

G. Acevedo, NMED HWB

C. Gierke, CAFB

C. Soto-Lorenzo

S. Jennings

J. Burgoon

File:

CAFB 2021 and Reading



New Mexico Environment Department Hazardous Waste Bureau

Cannon Air Force Base 27th Special Operations Wing 110 E. Alison Ave, Ste. 1098 Cannon Air Force Base, NM 88103-5217 Attn: Colonel Terence G. Taylor

8/16/2021

Invoice # - HWB-CAFB-21-002

CAFB-Draft Aqueous Film-Forming Foam Release Areas Phase I Remedial Investigations Work Plan, May 2021

Quantity	Item	Item Cost	Total Cost
1	Investigation Work Plan (RFI Work Plan) - 1st Unit	\$15,000.00	\$15,000.00
		Total Fees	\$15,000.00
		Extra Units (6)	\$6,000.00
		Pay This Amount	\$21,000.00

Make Checks Payable to: NMED/HWB

Mail Checks and Invoice to:

New Mexico Environment Department, HWB Attn: Bureau Financial Manager

2905 Rodeo Park Drive East, Bldg 1 Santa Fe, NM 87505



Certified Mail - Return Receipt Requested

August 17, 2021

Colonel Terance G. Taylor Commander, 27th Special Operations Wing 100 Air Commando Way, Suite 100 Cannon Air Force Base New Mexico 88103-5214

RE: DRAFT AQUEOUS FILM-FORMING FOAM RELEASE AREAS PHASE I REMEDIAL INVESTIGATION WORK PLAN MAY 2021
CANNON AIR FORCE BASE, NEW MEXICO
EPA ID #NM7572124454

HWB-CAFB-21-002

Dear Colonel Taylor:

The New Mexico Environment Department (NMED) is in receipt of the Cannon Air Force Base (Permittee) *Draft Aqueous Film-Forming Foam Release Areas Phase I Remedial Investigation Work Plan Cannon Air Force Base Clovis, May 2021* (RI WP) with cover letter dated June 21, 2021. Electronic copies of the RI WP on disc were delivered to the NMED Hazardous Waste Bureau offices on June 23, 2021.

The cover letter for the submittal states, "[p]ursuant to the provisions of the Defense Environmental Restoration Program, the Air Force investigation and mitigation actions for PFOS/PFOA are guided under the Comprehensive Environmental Restoration Compensation and Liability Act (CERCLA)." NMED does not agree that this investigation of per-and polyfluorinated alkyl substances (PFAS) are subject to review under CERCLA; this investigation is subject to regulation under the Resource Conservation and Recovery Act (RCRA) and the New Mexico Hazardous Waste Act (HWA). As such, Cannon Air Force Base must conduct the investigation in accordance with the requirements specified in the Cannon Air Force Base RCRA Permit EPA ID # NM7572124454 (RCRA Permit) issued in December 2018. NMED will conduct a review of the RI WP consistent with the RCRA Permit and provide approval, disapproval, or approval with modifications in accordance with Section 1.17.1 of the Permit.

Col. Taylor August 17, 2021 Page 2

The cover letter also states, "[t]his review period is for 30 days following the CERCLA process." As stated above, this investigation of PFAS at and off-site from Cannon Air Force Base is not subject to CERCLA; rather, it is subject to the requirements of RCRA and the HWA. Therefore, NMED will conduct its review of the RI WP in accordance with the timeframes specified in 20.4.2 NMAC as stated in Section 1.17.1 of the RCRA Permit and more specifically as specified in 20.4.2.7.I(4), 20.4.2.201.B(2)(a) and (3), 20.4.2.208 and 20.4.2.301.C NMAC.

While the NMED is encouraged the United State Air Force (USAF) is taking responsibility for PFAS contamination at and off-site from Cannon Air Force Base, any work performed prior to NMED approval is at its own risk. Pursuant to RCRA and the HWA, NMED may require different and/or additional work beyond that proposed by USAF in the RI WP.

If you have any questions regarding this letter, please contact Dave Cobrain at (505) 476-6055.

Sincerely,

Ricardo Maestas Acting Chief Hazardous Waste Bureau

cc: C. Catechis, NMED RPD

- C. Atencio, NMED OGC
- D. Cobrain, NMED HWB
- G. Acevedo, NMED HWB
- L. King, EPA Region 6 (6LCRRC)
- J. Pignataro, CAFB
- C. Gierke, CAFB
- C. Chavez, CAFB

File: Reading and CAFB 2021

DAVIS, JORDAN F Capt USAF AFR/JAOE-ER

From: GIERKE, CHRISTIPHER N GS-13 USAF AFCEC 27 SOCES/AFCEC/CZOW

<christipher.gierke@us.af.mil>

Sent: Tuesday, January 11, 2022 3:51 PM

To: PIGNATARO, JOEL F GS-13 USAF AFSOC 27 SOCES/CEIE; PEDRONCELLI, TOBY M GS-12

USAF AFCEC AFCEC/CZOW

Subject: FW: Letter addressed to Colonel Taylor

Attachments: 2021-11-17 RPD-HWB-CAFB-21-002_PFAS RI WP-Disapproval (draft).pdf

V/R

Christipher Gierke Remedial Project Manager

AFCEC/CZOW

Comm: 575-904-6744 DSN: 640-6744

https://www.cannon.af.mil/Environmental/

From: Martinez, Cynthia, NMENV <cynthia.martinez1@state.nm.us>

Sent: Wednesday, December 15, 2021 1:42 PM

To: GIERKE, CHRISTIPHER N GS-13 USAF AFCEC 27 SOCES/AFCEC/CZOW <christipher.gierke@us.af.mil>

Cc: Shean, Rick, NMENV <Rick.Shean@state.nm.us>; Cobrain, Dave, NMENV <dave.cobrain@state.nm.us>; Wear, Benjamin, NMENV <Benjamin.Wear@state.nm.us>; Acevedo, Gabriel, NMENV <Gabriel.Acevedo@state.nm.us>;

'king.laurie@epa.gov' <king.laurie@epa.gov>; SOTO-LORENZO, CARLOS J GS-14 USAF AFSOC 27 SOCES/CCD <carlos.soto-

lorenzo@us.af.mil>; BURGOON, JONATHAN J CTR USAF AFSOC 27 SOCES/27 SOCES/CZOW

<jonathan.burgoon.ctr@us.af.mil>

Subject: [Non-DoD Source] Letter addressed to Colonel Taylor

Good Afternoon,

Please see attachment.

Cynthia Martinez New Mexico Environment Department Hazardous Waste Bureau 2905 Rodeo Park Drive East, Bldg.1 Santa Fe, New Mexico 87505-6313



Certified Mail - Return Receipt Requested

December 15, 2021

Colonel Terence G. Taylor Commander, 27th Special Operations Wing 100 Air Commando Way, Suite 100 Cannon Air Force Base New Mexico 88103-5214

RE: DISAPPROVAL

DRAFT AQUEOUS FILM-FORMING FOAM RELEASE AREAS PHASE I REMEDIAL INVESTIGATION WORK PLAN
CANNON AIR FORCE BASE, NEW MEXICO
EPA ID #NM7572124454

HWB-CAFB-21-002

Dear Colonel Taylor:

The New Mexico Environment Department (NMED) has received the Cannon Air Force Base (Permittee or CAFB) *Draft Aqueous Film-Forming Foam Release Areas Phase I Remedial Investigation Work Plan* (Work Plan), dated June 21, 2021. NMED has reviewed the Work Plan and hereby issues this Disapproval with the following comments.

GENERAL COMMENT

1. Permittee Issuance of the Work Plan for NMED Review

NMED Comment: The cover letter for the Work Plan states, "[p]ursuant to the provisions of the Defense Environmental Restoration Program, the Air Force investigation and mitigation actions for PFOS/PFOA are guided under the Comprehensive Environmental Restoration Compensation and Liability Act (CERCLA)." As clarified in NMED's August 17, 2021, *Draft Aqueous Film-Forming Foam Release Areas Phase I Remedial Investigations Work Plan May 2021* letter, NMED does not agree that investigation of per-and polyfluorinated alkyl substances (PFAS) proposed in the Work Plan are subject to review under CERCLA. The investigation is subject to regulation under the Resource Conservation and Recovery Act (RCRA) and the New Mexico Hazardous Waste Act (HWA); therefore, the investigation must be conducted in accordance with the requirements specified in the *Cannon Air Force Base*

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Resource Conservation and Recovery Act Hazardous Waste Permit (EPA ID # NM7572124454) (RCRA Permit) dated December 2018. As required by the RCRA Permit, NMED's review of the Work Plan is in accordance with RCRA Permit Section 1.17.1 and 20.4.2 New Mexico Administrative Code (NMAC). The Permittee must remove all references to CERCLA from the revised Work Plan as it is not applicable to corrective action at CAFB, a permitted RCRA hazardous waste facility. The Permittee must revise the Work Plan accordingly.

Failure to submit a revised Work Plan that addresses all NMED comments in this letter will likely result in rejection of the subsequent investigation report and any conclusions contained therein, as well as potentially subject the Permittee to future enforcement actions as outlined in RCRA Permit Section 1.7, Enforcement.

Furthermore, any investigation conducted by the Permittee without NMED approval is performed at risk, and it is likely that NMED will require different or additional work beyond that conducted by the Permittee without an approved work plan. This may include repeating work that does not meet the technical standards described in the RCRA Permit, NMED's 2020 *General Reporting Guidelines for Corrective Action Documents*, as updated (NMED Reporting Guidelines), found at https://www.env.nm.gov/hazardous-waste/guidance-documents/, and NMED's 2019 Risk Assessment Guidance for Site Investigations and Remediation (RA Guidance), as updated.

SPECIFIC COMMENTS

2. Section 1, Introduction, Page 1-1

Permittee Statement: "The UFP-QAPP [Uniform Federal Policy-Quality Assurance Project Plan] describes and provides specifications for all Phase I RI [Remedial Investigation] activities described in this Phase I RI Work Plan."

NMED Comment: NMED does not review or approve QAPPs or Standard Operating Procedures (SOPs) included in QAPPs. NMED previously clarified this in the February 2, 2012, *Notice of Disapproval Site Investigation at Eight Sites* (NMED Comment Nos. 2 and 3) and other NMED response letters for CAFB document submittals. Additionally, RCRA Permit Section 6.2, Investigation Work Plan, requires that complete and comprehensive descriptions of all proposed investigation methods, procedures, and specifications, be described in the narrative of the Work Plan. RCRA Permit Parts 3 through 5 outline the technical requirements for corrective action investigations and evaluation of the collected data and information to be proposed in a work plan and that are applicable to the scope of work proposed in the Work Plan. For compliance with the RCRA Permit, the Permittee must format the Work Plan in accordance with RCRA Permit Section 6.2 and NMED's Reporting

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Guidelines; all reference to a UFP-QAPP and any SOPs removed. The Permittee must revise the Work Plan accordingly.

3. Section 1.2, Project Scope, Page 1-2

Permittee Statement: "Preparation of a Phase I Report in general accordance with EPA guidance (EPA 1988) that summarizes information collected during the project."

NMED Comment: The RCRA Permit provides the applicable regulatory standard for the proposed PFAS investigation and reporting. Additionally, any applicable risk evaluation must comply with NMED's RA Guidance, as updated. The Permittee must revise the Work Plan to propose PFAS investigation, data evaluation, and reporting in accordance with the RCRA Permit and NMED guidelines.

4. Section 1.4, AFFF and PFAS, Page 1-3

NMED Comment: The Permittee must address the following comments:

- a. The Permittee stated, "[t]he Phase I RI [Remedial Investigation] focused on evaluating three PFAS compounds: perfluorooctane sulfonate (PFOS), perfluorooctanoic acid (PFOA), and perfluorobutanesulfonic acid (PFBS), which are collectively referred to as PFAS in this document." However, evaluation of only three PFAS compounds is insufficient to address potential contamination in environmental media at the Facility and the surrounding area from additional PFAS compounds. Evaluation of a wider range of PFAS compounds is essential to defining the nature and extent of contamination, understanding the fate and transport of contamination, and development of a more accurate conceptual site model that appropriately fits the work scope objective proposed by the Permittee in Section 1.1, Project Objective. NMED's RA Guidance Section 5.3, PFAS and Table 5-2, PFAS Analyte List, identify twenty-four of the most common PFAS contaminants of concern (COCs) and four PFAS replacement chemicals that must be evaluated during PFAS investigations. The Permittee must revise the Work Plan to propose analyses of investigation samples for the twenty-four PFAS COCs and replacement chemicals listed in NMED's RA Guidance.
- b. The Permittee stated, "EPA Regional screening Levels (RSLs) from May 2021 for tapwater or residential soil, which were obtained from the RSL calculator or summary tables set at a hazard quotient of 0.1 will be used to delineate PFOS, PFOA, and PFBS in groundwater, surface water, soil, and sediment." RCRA Permit Part 3, Corrective Action for Solid Waste Management Units and Areas of Concern, outlines the applicable cleanup and screening level criteria for groundwater (Section 3.3.1),

soil and sediment (Section 3.3.2.1), and surface water (Section 3.3.2.2) that must be used for data comparison. As required by RCRA Permit Section 3.3, Cleanup Levels, proposed screening and cleanup levels must meet the cumulative target risk level for carcinogens of 1E-05 and the additive target hazard quotient for non-carcinogens of 1.0. The Permittee must submit all proposed cleanup and screening levels to NMED for review and approval. Permittee-calculated screening levels proposed for use during an investigation must include supporting data and calculations. The Permittee must revise the Work Plan to propose comparison of all PFAS sample analysis data to cleanup and screening criteria that meet the specifications of the RCRA Permit and the RA Guidance.

5. Section 2.6.6, Wastewater Treatment Plant [WWTP] Sampling, Pages 2-11 and 2-12

Permittee Statement: "In August 2019, EA Engineering Science and Technology Inc. (EA) collected samples from the influent and effluent of the WWTP [Wastewater Treatment Plant] for analysis of 18 PFAS compounds. One sample was collected from the WWTP influent and effluent and one duplicate sample was collected from the WWTP effluent. The discussion in this section will focus on PFAS compounds of interest to this RI (PFOS, PFOA, and PFBS)."

NMED Comment: This section must discuss the results of the August 2019 WWTP sampling event that addressed eighteen PFAS compounds in its entirety. Consideration of the complete results of the prior sampling event at the CAFB WWTP is essential to proposing an investigation to characterize all contamination at the Facility's potential source areas. Revise the Work Plan to address all contaminants identified during the WWTP sampling. In addition, the Permittee must submit all WWTP sampling event data, or a respective report with the supporting data, to NMED as a separate document. Upon receipt, NMED will include the submittal in the Facility administrative record. The Permittee must revise the Work Plan accordingly.

6. Section 3.5.1.2, AOI [Area of Interest]-Specific Fate and Transport, Page 3-9

Permittee Statement: "Impacted surface water and sediment might present a concern for PFAS leaching to groundwater at North Playa Lake, due to the potential downward movement in areas absent of caliche."

NMED Comment: The Permittee's statement that the presence of caliche in the subsurface would limit the potential downward migration of COCs in the subsurface is insufficient to determine whether a soil-to-groundwater pathway exists. A soil-to-groundwater pathway evaluation in accordance with RA Guidance, Section 4.9, Summary of the Migration to Groundwater Pathway and SL-SSLs [soil leachate based-soil screening levels], is required to evaluate site conditions more appropriately at identified AOIs addressed in Section 3.5. The

evaluation may include the development of site-specific risk-based screening levels for COCs for NMED approval and must include multiple lines of evidence to support an incomplete pathway. Appropriate lines of evidence may include, but are not limited to, any combination of information, such as, history of contamination source removal actions, vertical delineation of contamination in the subsurface, depth to groundwater information, physical and chemical characteristics of the COCs, a lack of liquids that would facilitate the downward migration of COCs in the subsurface, and applicable site-specific geology and hydrology. Due to confirmed groundwater impacts by PFAS COCs at CAFB and surrounding areas, the Permittee must revise the Work Plan to propose a rigorous evaluation of the soil-to-groundwater pathway at all AOIs. The Permittee must base the evaluation on data and information collected during the proposed investigation for the potential identification of contamination source areas requiring further investigation and evaluation.

7. Section 4.3, Standard Operating Procedures, Pages 4-1 and 4-2

NMED Comment: Generalized reference to SOPs in the UFP-QAPP is not appropriate as a description of proposed field and data collection methods and procedures. All investigation methods and procedures proposed for use at AOIs must meet the requirements outlined in RCRA Permit Parts 3 through 5 and must be proposed in the body of the Work Plan as outlined in RCRA Permit Part 6.2.8, Investigation Methods and the NMED Reporting Guidelines. The Permittee must revise the Work Plan narrative to describe all proposed methods and procedures specific to investigations at all AOIs in detail, and references to SOPs must be removed.

8. Section 4.4, Field Documentation, Page 4-2

NMED Comment: The Permittee must describe all field documentation procedures referenced as included in UFP-QAPP in detail in Section 4.4 as applicable to the proposed project work at AOIs, as required by RCRA Permit Section 6.2.8 and the NMED Reporting Guidelines. RCRA Permit Par 4 outlines the required field data collection requirements. The Permittee may include all field forms proposed for use for field work documentation in an appendix of the revised Work Plan. The Permittee must revise the Work Plan accordingly.

9. Section 4.7.2, Reporting, Page 4-4

Permittee Statement: "After events 1 [on-and off- base surface soil investigations and off-base groundwater sampling] and 2 [subsurface investigation], the data will need to be analyzed to propose off base monitoring well and lysimeter locations. Therefore, a revised Phase I Work Plan memorandum will be prepared after event 1 and event 2, as described in the graphic below. Revisions will not be made to the UFP-QAPP. It is anticipated that EPA will approve the proposed locations within two weeks of the submittal of the memorandum."

NMED Comment: The investigation is subject to regulation under the RCRA Permit; therefore, the Permittee must submit the proposed Work Plan memorandum, as an addendum to the Work Plan to NMED for review and approval. As required by RCRA Permit Section 1.17, Submissions to the NMED, the addendum must be provided as two hard copies and two electronic copies. Once received, NMED will review the addendum to the Work Plan in accordance with RCRA Permit Section 1.17.1. The Permittee must revise the Work Plan to reflect these requirements for submittal and NMED review of the proposed Work Plan addendum.

10. Section 4.8, Analytical and Data Reporting, Pages 4-4 and 4-5

NMED Comment: The Permittee must address the following comments:

a. The Permittee stated, "[s]ampling as described in the sections below (Sections 4.9, 4.10, 4.11, 4.12, and 4.13) will be analyzed for PFAS on standard turnaround time (10 business days) by liquid chromatography and tandem mass spectrometry [LC/MS/MS] utilizing isotope dilution compliant with DoD [Department of Defense] Quality Systems Manual 5.3. In addition, the composite soil samples collected (Section 4.11) will be analyzed for physiochemical parameters (pH, particle size distribution, TOC [total organic carbon], and cation exchange capacity), in accordance with the methods specified in the UFP-QAPP (Appendix A)."

General reference to analysis methods and quality control sampling in the UFP-QAPP is not appropriate. The Permittee must revise this section discussion to provide specifics for sampling and analysis methods to be used for PFAS analysis of soil, groundwater, surface water, sediment, and pore water and the physiochemical parameters with appropriate reference to any supporting Work Plan tables and figures as required by RCRA Permit Section 6.2.8 and the NMED Reporting Guidelines.

b. As of July 30, 2021, the United States Environmental Protection Agency (EPA) has published final versions of SW-846 Methods 3512 and 8327 for laboratory preparation and analysis of PFAS in non-potable waters. The methods are applicable to samples for groundwater, surface water, and wastewater for use during investigation and cleanup of PFAS contamination. EPA Method 8327 is the determinative method for PFAS sample analysis with LC/MS/MS. The EPA validated methods are the required sample preparation and analysis methods for PFAS analysis of groundwater, surface water, and wastewater, and the Permittee must propose them for use in the revised Work Plan. The Permittee must revise the Work Plan accordingly.

c. The Permittee stated, "[t]he quality control (QC) samples for each type of sampling will be analyzed as outlined in the UFP-QAPP (Appendix A) and in accordance with the required frequencies."

The Permittee must describe QC samples proposed for all sample media in detail in the body of the revised Work Plan pursuant to RCRA Permit Section 6.2.8 and the NMED Reporting Guidelines. The Permittee must revise the Work Plan accordingly.

d. The Permittee stated, "[l]aboratory analytical data will be validated in accordance with the UFP-QAPP, and a data usability assessment will be included in the Phase I RI Report."

Reference to laboratory data validation procedures included in the UFP-QAPP is inappropriate. The Permittee must describe all proposed laboratory data validation procedures in detail in the revised Work Plan pursuant to RCRA Permit Section 6.2.8 and the NMED Reporting Guidelines. Proposed data validation and reporting must comply with NMED's data quality assurance and control procedures and standards specified in RCRA Permit Section 4.5, Chemical Analyses. The Permittee must revise the Work Plan to provide a detailed discussion of the proposed project data validation and reporting procedures that must comply with the requirements of the RCRA Permit.

11. Section 4.9, Groundwater Monitoring Well Installations, Page 4-5

Permittee Statement: "The monitoring wells will be constructed and developed per the approved Work Plan and UFP-QAPP (Appendix A) and in accordance with state, county, and CAFB requirements."

NMED Comment: The following comments must be addressed as follows:

- **a.** Reference to the UFP-QAPP is not appropriate and must be removed from the Work Plan. The Permittee must revise the Work Plan to describe in detail all proposed project specific groundwater monitoring and monitoring well installation methods and procedures. This is a requirement of RCRA Permit Section 6.2.8 an the NMED Reporting Guidelines.
- **b.** The scope of work proposed in the Work Plan Section (4.9) is subject to the groundwater monitoring and well installation requirements of RCRA Permit Sections 4.3, Groundwater and Monitoring, and RCRA Permit Part 5, Monitoring Well Construction Requirements. The Permittee must propose a scope of work that meets the RCRA Permit requirements. This Permittee must propose the work scope in the body of the Work Plan. Failure to meet RCRA Permit requirements for

groundwater monitoring and well installation will likely result in the rejection of any groundwater sample data and, if the Permittee identifies significant issues with groundwater monitoring wells, the directive to abandon and replace the monitoring wells. The Permittee must review and revise the Work Plan to ensure technical compliance with the RCRA Permit for groundwater monitoring and monitoring well installation.

12. Section 4.9.2, Drilling and Soil Sample Collection, Page 4-5 and 4-6

Permittee Statement: "During sonic drilling, soil samples will be collected directly from the soil core in accordance with the SOP for Soil Sampling and Analysis of PFAS, in Attachment 1 of the UFP-QAPP (Appendix A)."

NMED Comment: The Permittee must address the following comments:

- **a.** The Permittee must revise this section discussion to describe in detail the methods and procedures for sample collection and drilling as required by RCRA Permit Section 6.2.8 and the NMED Reporting Guidelines. All proposed drilling and sampling activities must comply with the requirements outlined in RCRA Permit Sections 4.2.3 through 4.2.6. The Permittee must revise the Work Plan accordingly.
- b. The Permittee must propose monitoring wells for locations in areas identified as PFAS contamination source areas based on site history and soil sampling and, therefore, must include the collection of soil samples at regular intervals to the groundwater table. To allow for vertical delineation of contamination at identified source areas on-and off-base, the Permittee must revise the sampling plan for proposed new monitoring wells (Table 4-4) to propose the collection of at least ten soil samples at regular intervals for laboratory analysis from each boring location, in accordance with that proposed for MW-PW001. The Permittee must propose sample intervals and soil samples collected in accordance with RCRA Permit Section 4.2.3.3. The Permittee must revise the Work Plan accordingly.

13. Section 4.9.3, Monitoring Well Construction, Page 4-6

Permittee Statement: "The wells will be constructed with 4-inch diameter PVC [polyvinyl chloride] Schedule 80 casing with either a 40-foot or 50-foot screen."

NMED Comment: To minimize the potential for sample COC concentration dilution, the screened intervals for all proposed monitoring wells must not extend beyond 30 feet below the groundwater table and must be completed with at least 5 feet of screened interval above the groundwater table. Additionally, to ensure the Permittee collects representative groundwater samples from each monitoring well, the Permittee must complete all

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proposed monitoring wells with stainless steel well screen to limit the potential for cross-contamination of groundwater samples for PFAS analysis. Proposed well construction and methods must meet the requirements of RCRA Permit Section 5.2, Well Construction/Completion Methods. The Permittee must revise the Work Plan accordingly.

14. Section 4.9.4, Monitoring Well Development, Page 4-7

Permittee Statement: "Development will then proceed using a submersible pump until water quality parameters stabilize according to the criteria in the SOP (Attachment 1 of the UFP-QAPP)."

NMED Comment: SOPs are not acceptable to describe the proposed procedures. The section discussion must include details regarding water quality parameters that will be measured during development of monitoring wells (e.g., pH, conductivity, temperature, and turbidity), the frequency of data collection, and the applicable stabilization criteria. The Permittee must also describe proposed well development procedures in their entirety in the section discussion and must comply with the requirements of RCRA Permit Section 5.2.5, Groundwater Well Development. The Permittee must revise the Work Plan accordingly.

15. Section 4.10, Groundwater Sampling, Pages 4-7 and 4-8

NMED Comment: The Permittee must address following comments regarding groundwater sample collection in the revised Work Plan:

a. The Permittee must revise this section to discuss the details of on-and off-base sampling of monitoring, irrigation, and domestic wells during the proposed investigation. Providing references in the Work Plan to figures and tables is insufficient to propose the scope of work for groundwater sampling. The Permittee must revise this section to describe the information provided on Tables 4-2 and 4-3 with appropriate reference to the tables and any supporting figures (e.g., Figures 4-1 through 4-4). The section must discuss in detail the monitoring, irrigation, and domestic wells proposed for sampling, details regarding the general location and rationale for sampling each well, procedures for the collection of water level data, the frequency of proposed sampling for each sample type, and all quality assurance data and information to be collected at each location as required by RCRA Permit Section 6.2.9, Monitoring and Sampling Program and the NMED Reporting Guidelines. The Permittee must conduct all proposed groundwater sampling and data collection in accordance with RCRA Permit Section 4.3, Groundwater and Monitoring. The Permittee must describe any proposed sampling methods and procedures specific to sampling groundwater for PFAS COCs in detail. If described elsewhere in the Work Plan, the Permittee must provide appropriate references. The Permittee must revise the Work Plan accordingly.

b. The Permittee stated in Section 4.10.3, "[a]s part of the QC process, field QC samples will also be collected in accordance with UFP-QAPP (Appendix A)."

The Permittee must provide details regarding collection of QC samples in the body of the Work Plan and discuss in detail as required by RCRA Permit Section 6.2.8 and the NMED Reporting Guidelines. All proposed QC samples must meet the sample collection specifications outlined in RCRA Permit Section 4.3.5, Groundwater Sample Types. The Permittee must discuss any project specific QC sampling in detail in the section. The Permittee must revise the Work Plan accordingly.

16. Section 4.11, Potential Source Area Sampling, Pages 4-8 to 4-10

NMED Comment: Based on NMED's review of Section 4.11, referenced Table 4-4, and Figures 4-1 through 4-8, the Permittee must address the following comments:

- a. The discussion does not adequately address all sampling listed on Table 4-4, Summary of Proposed Surface and Subsurface Soil Sampling Locations. As an example, supporting Section 4.11.2, Soil Sample Collection, addresses sixteen proposed borings at the North Playa Lake and Whispering Winds Golf Course, but it fails to address the additional proposed soil sampling for on-base surface soils at forty locations and for off-base surface soil samples at six locations also listed on Table 4-4. To address this issue, the Permittee must revise the discussion to describe all on- and off-base soil sampling, all methods and procedures to be used, and the sampling program for each AOI proposed separately, with appropriate references to Table 4-4 and any supporting figures, as required by RCRA Permit Sections 6.2.8 and 6.2.9 and the NMED Reporting Guidelines.
- **b.** In Section 4.11.2, Soil Sample Collection, the Permittee stated, "[s]oil samples will be collected from hand augers and/or stainless-steel split-spoon samplers during hollow-stem auger (HAS) drilling, in accordance with the SOP for Soil Sampling and Analysis of PFAS (Attachment 1 of the UFP-QAPP in Appendix A)".
 - The Permittee must remove reference to the QAPP and SOP and must describe all sampling methods and procedures in detail in the section text. The proposed methods and procedures for soil sampling must conform to the requirements of RCRA Permit Section 4.2.3.3, Soil Sampling. The Permittee must revise the Work Plan accordingly.
- **c.** In Section 4.11.2, the Permittee stated, "[a]s part of the QC process, QC samples will also be collected in accordance with UFP-QAPP (Appendix A)"

The Permittee must describe the QC process and samples to be collected in the appropriate sections of the Work Plan for soil samples. The Permittee must propose QC samples in accordance with the requirements of RCRA Permit Section 4.2.6, Soil Sample Types. The Permittee must revise the Work Plan to conform to the requirements of the RCRA Permit for QC sample collection.

- d. Figure 4-6 indicates advancement of only two soil borings (SB02001 and SB02002) to 30 feet bgs at Former Fire Training Area No. 3 (Solid Waste Management Unit (SWMU) 107). Based on historical investigations previously conducted at SWMU 107, the soil borings are not located in areas of identified contamination associated with use of the site as a fire training area (e.g., hydrocarbon, solvents, and metals), and likely, where AFFF has also been used. The Permittee must complete the appropriate level of due diligence and propose additional boring locations where it identified characteristic fire training area contamination. The Permittee must propose soil sample collection to 50-ft bgs for PFAS analysis and collect samples pursuant to the requirements of RCRA Permit Section 4.2.3.3. The Permittee must revise the Work Plan accordingly
- e. Based on historical site investigation information for Former Fire Training Area No. 4 (SWMU 109), soil boring SB03003 does not appear to be located at the actual location of the former vehicle chassis fire training pit where AFFF would have been directly applied. The Permittee must complete the due diligence to accurately locate the vehicle chassis fire training pit and propose the advancement of an additional boring to 50 feet bgs for PFAS contamination delineation at that location. The Permittee must propose soil sampling and collect samples pursuant to the requirements of RCRA Permit Section 4.2.3.3. The Permittee must revise the Work Plan accordingly.
- f. The Work Plan proposes sampling at locations along the periphery of the mapped Active Fire Training Area (RCRA Area of Concern JJJ) and at down gradient locations from the wastewater evaporation pond. Based on elevated concentrations of PFAS reported at locations near the evaporation pond, the advancement of at least three additional borings to 30 feet bgs, within the fire training area boundary mapped on Figure 4-6 at locations surrounding the aircraft mockup and wastewater collection pit, appear warranted for complete site characterization. The Permittee must propose soil sampling and collect samples pursuant to the requirements of RCRA Permit Section 4.2.3.3. The Permittee must revise the Work Plan accordingly.
- g. The Permittee must vertically and horizontally delineate all encountered PFAS contamination in surface and subsurface soil and groundwater at all AOIs. If the Permittee has not delineated the encountered PFAS contamination, the Permittee must advance additional borings and collect soil samples for PFAS analysis until the

contamination has been completely delineated as required by RCRA Permit Sections 4.2.3.1 and 4.2.3.3. The Permittee must revise the Work to address this comment.

17. Section 4.12.2, Surface Water and Sediment Sample Collection, Page 4-10

Permittee Statement: "A surface water sample and sediment sample will be collected at each of the twelve locations following procedures in the *Surface Water Sampling and Analysis of PFAS and Sediment Sampling and Analysis of PFAS* SOPs in the UFP-QAPP (Attachment 1 of Appendix A)."

NMED Comment: Reference to the QAPP and SOPs is inappropriate for description of the proposed surface water and sediment sampling and must be removed from the section discussion. The Permittee must discuss the proposed sampling program, methods, procedures, and QC sampling for surface water and sediment sampling in detail with appropriate references to other supporting Work Plan sections, tables, and figures. The Permittee must ensure that the proposed sampling program methods and procedures meet the requirements of RCRA Permit Parts 3 and 4. The Permittee must revise the Work Plan accordingly.

18. Section 4.13.5, Pore Water Sample Collection, Page 4-13

NMED Comment: The Permittee must revise this section to discuss in detail the proposed QC sampling plan and procedures. Reference to the UFP-QAPP is inappropriate.

19. Section 4.14, Reporting, Page 4-14

NMED Comment: The Permittee must address the following comments:

- a. As clarified by NMED Comment No. 1, General Comment, of this letter, PFAS and the proposed PFAS investigation are regulated under the RCRA Permit; therefore, the investigation report must conform to the requirements of Permit Section 6.3, Investigation Report and the NMED Reporting Guidelines. The Permittee must report all information and data collected during the investigation in the format required by the RCRA Permit. The Permittee must revise the Work Plan to include this requirement.
- **b.** The Permittee stated, "[r]ecommendations will be included for any additional data collection that may be needed to conduct the risk assessment component of the CERCLA process." Risk assessment pursuant to CERCLA does not apply to this investigation. The Permittee must conduct proposed risk assessment in accordance with NMED's RA Guidance. Remove all references to CERCLA from the revised Work Plan and revise the Work Plan accordingly.

c. Propose work plan addendum and investigation report submittal schedules for NMED approval based on the anticipated field investigation schedule as required by RCRA Permit Section 6.2.10, Schedule and the NMED Reporting Guidelines. The Permittee must revise the Work Plan accordingly.

20. Table 2-1, Existing On-Base Monitoring Well Construction Information

NMED Comment: NMED noted discrepancies in monitoring well casing diameter, top of casing/measuring point elevations, top and bottom of well screening depth, well screen lengths, and bottom of well data presented on the table when compared with data and information previously documented in NMED-approved CAFB biennial periodic monitoring reports. Revise Table 2-1 to include accurate well completion data and information.

21. Table 4-1, Proposed Remedial Investigation Scope of Sequencing

NMED Comment: The Permittee must revise Table 4-1 to include the proposed sampling for Active Fire Training Area (AFFF Area 11) for sampling Events 1 and 2. The Permittee must revise the table for accuracy.

22. Appendix A: Uniform Federal Policy Quality Assurance Project Plan

NMED Comment: NMED does not review or approve QAPPs or any included SOPs. The Permittee must remove the UFP-QAPP included as Appendix A from the Work Plan and document and discuss all methods and procedures for sampling, data quality assurance and objectives, and other pertinent supporting project information in detail in the appropriate sections of the Work Plan as required by RCRA Permit Sections 6.2.7 through 6.2.13 and the NMED Reporting Guidelines. The Permittee must revise the Work Plan accordingly.

23. Appendix B: Generalized Stratigraphic Column of the Southern High Plains Aquifer Beneath Cannon Air Force Base (Figure 2 AECOM 2020)

NMED Comment: The Permittee must remove Appendix B from the Work Plan and submit the cited 2020 *Technical Memorandum, Cannon Air Force Base Site Conceptual Model* (Technical Memorandum) as a separate document that will be included in the Facility administrative record. The Permittee must also remove reference to the generalized stratigraphic column from the proposed sampling plan (e.g., Section 4.11.2) as it does not appear to be an accurate representation of site conditions at CAFB and the surrounding area. The Permittee may only list the Technical Memorandum in Section 5, References; and it must be appropriately cited in the Work Plan, as deemed necessary for generalized descriptions of site stratigraphy. The Permittee must revise the Work Plan accordingly and provide the memorandum as a separate document.

24. Appendix C: Top of the Dockum Group (Figure 2 AECOM 2020)

NMED Comment: The Permittee must remove the Appendix C figure from the Work Plan and submit the Technical Memorandum separately. The permittee must base characterization of subsurface stratigraphy and geology at CAFB on data collected during the proposed investigation or during other, similar project work at CAFB. Investigation conclusions based on data and information that has not been previously submitted to NMED or approved by NMED may result in invalidation of the Permittee's conclusions and any supporting information and requirement to conduct addition investigation. The Permittee must remove the Appendix C from the Work Plan and submit the Technical Memorandum as a separate document.

25. Appendix D: USGS [United Sates Geological Survey] Potentiometric Surface Maps Summer 2013 and Winter 2015 (USGS 2016)

NMED Comment: The Permittee must remove Appendix D USGS Potentiometric Surface Maps document from the Work Plan and submit the document as a separate document to be included in the Facility administrative record. The document may only be listed in Section 5, References, and must be appropriately cited in the Work Plan, as deemed necessary for generalized descriptions of site conditions. Revise the Work Plan accordingly and provide the document as a separate submittal.

26. Appendix F: Investigation Derived Waste Management Plan [IDWMP]

NMED Comment: The Permittee must address the following comments:

- **a.** Provide additional information regarding the proposed activated granulated carbon treatment of IDW contaminated with PFAS and the treatment system to be used. The IDWMP must be revised accordingly.
- **b.** Fire Training Areas Nos. 3 and 4 (AFFF Areas 2 and 3) are sites where hydrocarbon, solvent, and metals contamination has been previously identified; therefore, the Permittee must revise the IDWMP to also propose sampling for gasoline and diesel range organics, volatile organic compounds, and metals for solid and liquid IDW generated during field activities at AFFF Areas 2 and 3 in addition to proposed PFAS analysis. The Permittee must revise the IDWMP accordingly.
- c. Proposed on-site disposal of IDW solids and liquids must meet the most conservative screening criteria outlined in RCRA Permit Section 3.3, Cleanup Levels, as applicable to the waste media. These standards also apply to PFAS during IDW characterization. However, the Permittee must dispose of all solid and liquid IDW contaminated with

Colonel Taylor December 15, 2021 Page 15

> PFAS off-site at an appropriate disposal facility. The Permittee must revise the IDWMP accordingly.

The Permittee must submit a revised Work Plan (2 hard copies and 2 electronic copies) that addresses all comments contained in this Disapproval. In addition, the Permittee must include a response letter that cross-references where NMED's numbered comments are addressed. The Permittee must also submit an electronic redline-strikeout version of the revised Work Plan showing where all changes were made to the Work Plan. The revised Work Plan must be submitted no later than May 2, 2022.

If you have any questions regarding this letter, please contact Gabriel Acevedo at (505) 690-5760.

Sincerely,

Rick Shean Shean Date: 2021.12.15

Digitally signed by Rick 10:39:14 -07'00'

Rick Shean, Chief Hazardous Waste Bureau

D. Cobrain, NMED HWB cc:

B. Wear, NMED HWB

G. Acevedo, NMED HWB

L. King, EPA Region 6 (6LCRRC)

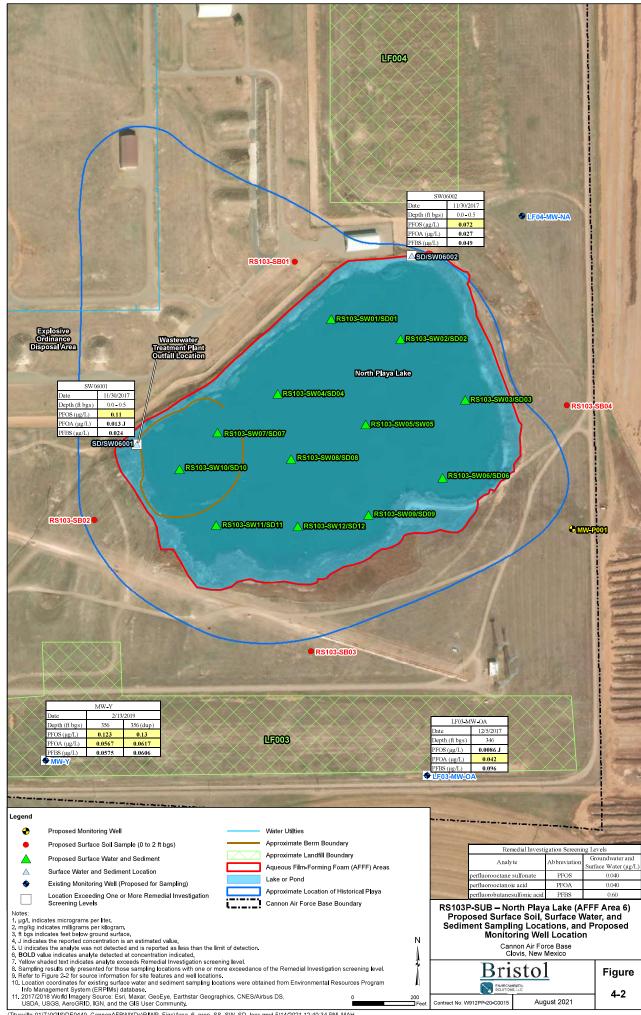
C. Gierke, CAFB

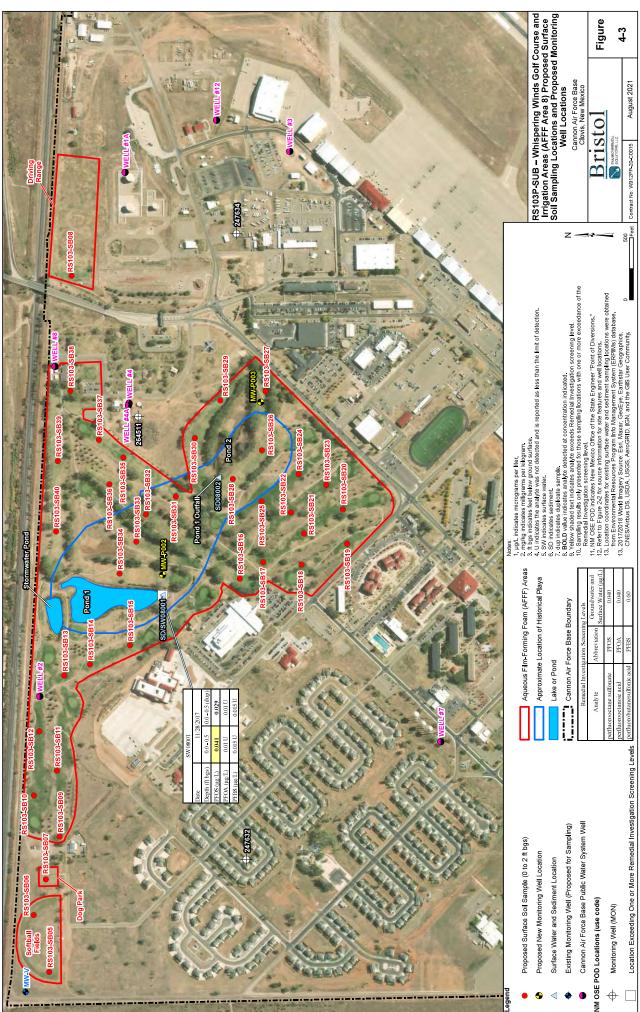
C. Soto-Lorenzo, CAFB

S. Jennings, CAFB

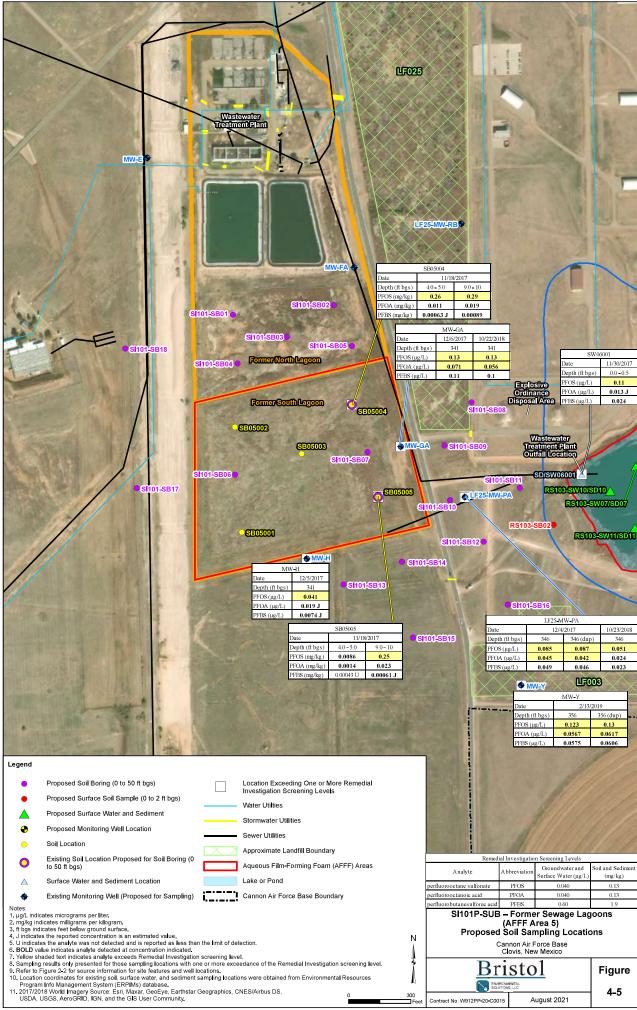
J. Burgoon, CAFB

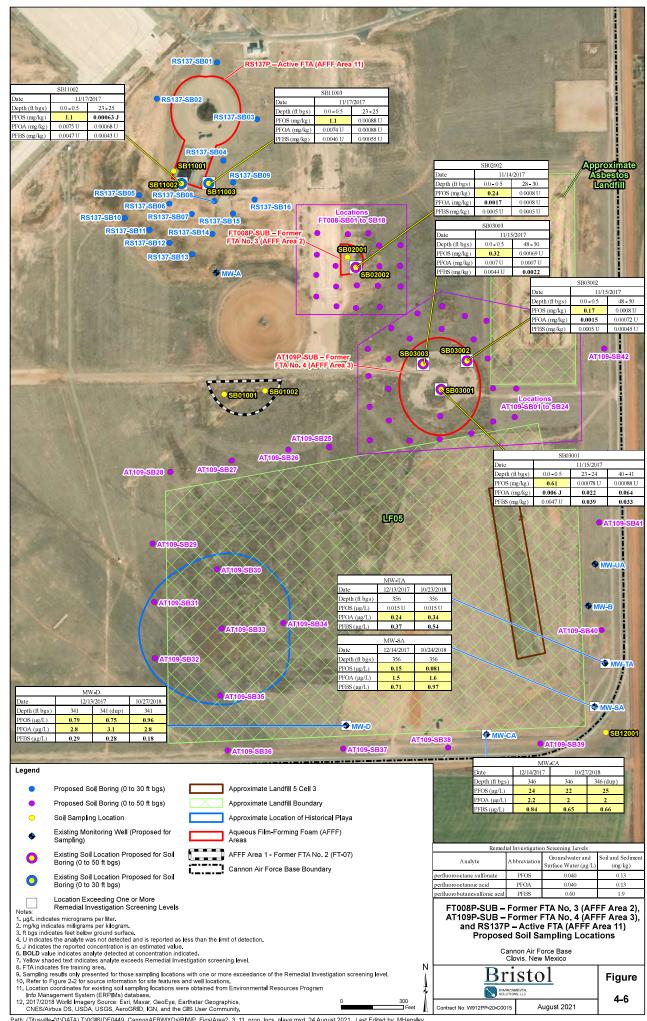
File: CAFB 2021 and Reading

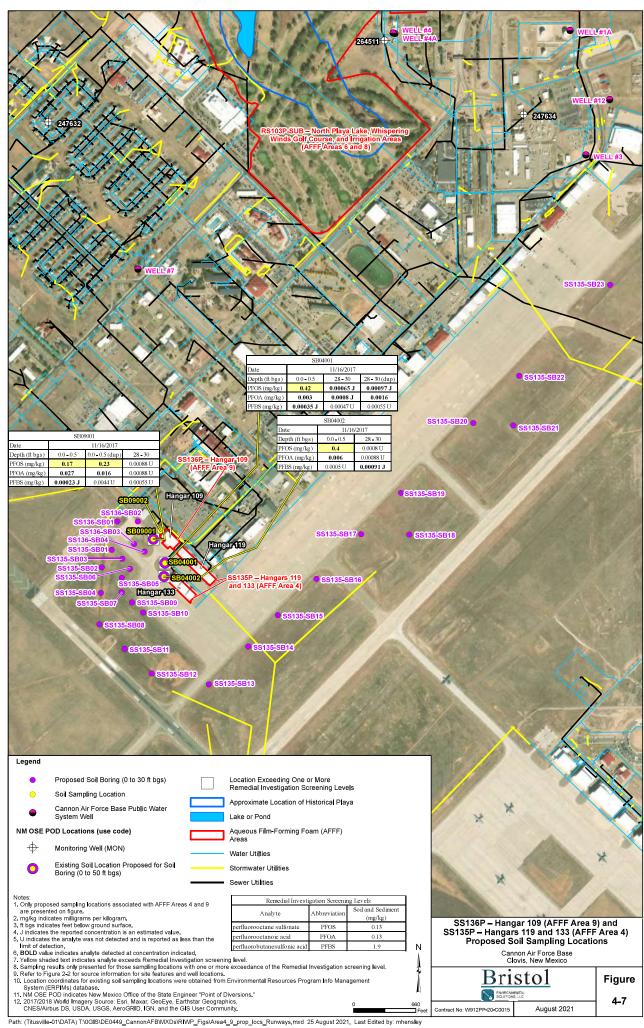


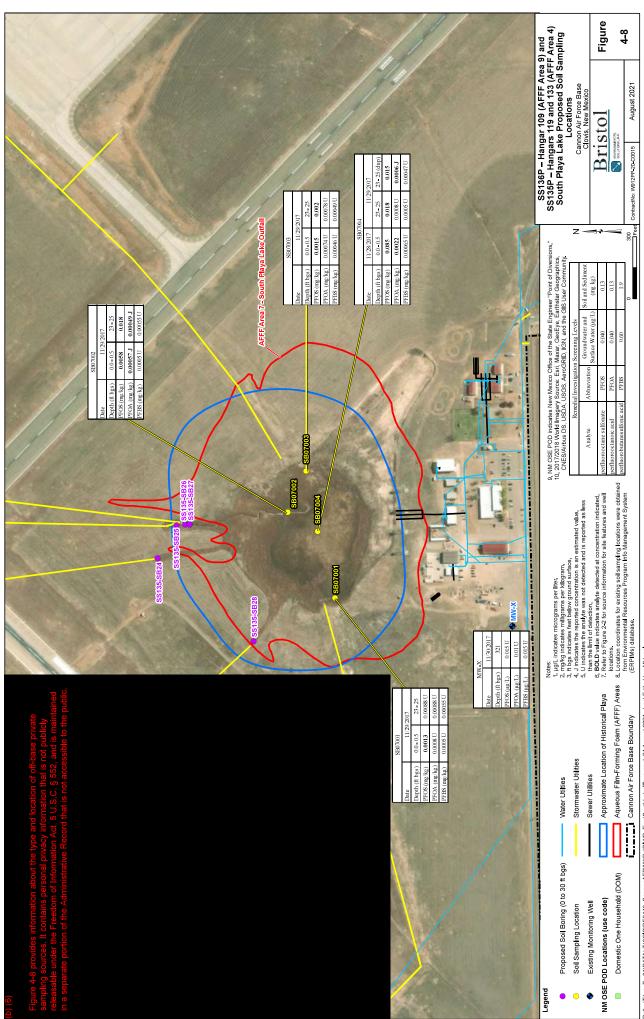


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DEPARTMENT OF THE AIR FORCE 27TH SPECIAL OPERATIONS WING (AFSOC) CANNON AIR FORCE BASE NEW MEXICO

Colonel Robert A. Masaitis, USAF Commander 27th Special Operations Wing 1 Air Commando Way Cannon Air Force Base NM 88103

Ms. Michelle Hunter Ground Water Quality Bureau Chief New Mexico Environment Department 1190 Saint Francis Drive / PO Box 5469 Santa Fe NM 87502-5469

Dear Ms. Hunter

The New Mexico Environment Department (NMED) published a public notice for the draft Discharge Permit Renewal and Modification for Cannon Air Force Base (AFB), DP-873, on February 14, 2021, for a 60-day public comment period ending on April 15, 2021. On March 10, 2021, Cannon AFB submitted a request for a 60-day extension to the public comment period. NMED granted Cannon AFB a 30-day extension for the public comment period with a revised due date of May 15, 2021. Attached, please find the Air Force comments to the referenced draft permit.

Cannon AFB respectfully requests an opportunity to arrange a meeting with appropriate NMED officials to work through the significant technical and legal issues contained in the draft DP-873 (the Permit) prior to final agency action. Cannon AFB looks forward to scheduling a productive meeting with NMED to address Cannon AFB's concerns. It is our hope to resolve our concerns in a mutually acceptable manner prior to final agency action and thereby avoid seeking an administrative remedy as authorized by New Mexico Statutes Annotated (NMSA) 2019 § 74-6-5(O) (as implemented by 20.1.3.16 A New Mexico Administrative Code [NMAC]).

Cannon AFB appreciates the valued working relationship established with you and the department. If you have any questions or concerns, please contact Mr. Matthias Laschet, the Water Quality Program Manager at (575) 904-6738 or at matthias.laschet@us.af.mil.

Sincerely

ROBERT A. MASAITIS, Colonel, USAF Commander

Attachment:

Cannon AFB's Comments for Draft Discharge Permit Renewal and Modification, DP-873, Cannon Air Force Base, May 2021

cc:

NMED (Young) CAFB (Jennings) AFCEC/CZOW (Segura,Pedroncelli) Public Info Repository, AR/IR, and File

Comment Number	Draft Permit Citation	Page Number	Comment
			General Comments
1	NA	NA	In accordance with 20.1.3 New Mexico Administrative Code (NMAC), it is the Air Force's intent to appeal the terms and conditions of the Draft Discharge Permit 873 (DP-873) issued to Cannon Air Force Base (CAFB).
2	NA	NA	CAFB has maintained a state groundwater discharge permit since 1994. This permit, DP-873, regulates future discharges from the on-base wastewater treatment plant (WWTP) and septic tank/leach field systems. New Mexico Environment Department (NMED) states in the Introduction to the draft permit that: "Data collected from on-site monitoring wells document exceedances of groundwater quality standards for PFCs [perfluorinated chemicals] according to the criteria of Sections 20.6.2.3101 and 20.6.2.3103 NMACrequirements, actions and/or contingencies intended to address the sources of documented groundwater contamination." These requirements include, but are not limited to, "a site investigation work plan to evaluate the presence of PFCs in soils within the re-use areas, the former sewage lagoons, the WWTP, and surrounding the North Playa Lake". The Air Force strongly disagrees that DP-873 is the legally appropriate vehicle for addressing any groundwater impact from the prior use of aqueous film forming foam (AFFF) at CAFB. As NMED is aware, the Air Force follows the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) process to address suspected releases of perfluorooctane sulfonate/perfluorooctanoic acid (PFOS/PFOA) (see Defense Environmental Restoration Program (DERP), 10 U.S.C. Section 2701). Our priority is to address PFOS/PFOA to protect personnel living and working on our installations and the surrounding communities that we have impacted. The 2018 Site Investigation Report identified the presence of PFOS/PFOA in groundwater at CAFB. The initial focus was identifying if there is an exposure through drinking water of PFOS/PFOA above the U.S. EPA Lifetime Health Advisory (LHA) for drinking water of 70 parts per trillion (ppt). If there is an exposure the Air Force's priority is to provide bottled drinking water. First, alternate drinking water was provided to locations with detections above the LHA, followed by the installation of point of use filtration systems. The Remedial invest

mitigating PFOS and PFOA contamination from past use of AFFF under CERCLA, DERP, and the National Oil and Hazardous Substances Pollution Contingency Plan (NCP). CERCLA Section 120(a) dictates the environmental remediation process for Federal facilities and CERCLA Section 120(a)(4) makes certain State environmental removal and remedial action laws, including enforcement, applicable to Federal facilities. That provision, is not relevant to the GW discharge permit issued because the Ground and Surface Water Protection Regulations are not "removal and remedial action laws."

The general objective of this draft permit seems to be an attempt to regulate in an impermissible fashion prior work (e.g., on PFOS/PFOA) or other emerging contaminants accomplished by the Air Force under CERCLA authority, rather than monitoring current discharges of constituents that have appropriate scientifically backed concentration trigger levels, under, respectively, CERCLA/Integrated Risk Information System (IRIS), the Safe Drinking Water Act (SDWA), or Resource Conservation and Recovery Act (RCRA). With due respect for NMED's need to protect the integrity of its groundwater, the Air Force intends to resist any attempt by the State to implement abatement under the terms of this permit when the same is not supported by sound science or applicable law.

Specifically, NMED is attempting to use the addition of PFCs to the list of toxic pollutants in the 2018 amendment of the Ground and Surface Water Protection regulations as a mechanism to require investigation and abatement for discharges that were compliant with prior versions of DP-873. The permitted wastewater discharges under the prior versions of DP-873 never resulted in the initiation of a Corrective Action Plan or abatement under 20.6.2.4104. The Air Force is exempt from the abatement regulations in 20.6.2.4103 NMAC for the investigation and restoration activities related to PFOS/PFOA because we are following the CERCLA process in accordance with 10 U.S.C. Section 2701. As stated in 20.6.2.4105(A)(2) NMAC: "Except as provided in Subsection B of this Section, Sections 20.6.2.4104 and 20.6.2.4106 NMAC do not apply to a person who is abating water pollution... under the authority of the U.S. Environmental Protection Agency pursuant to either the federal Comprehensive Environmental Response, Compensation and Liability Act, and amendments...".

States may regulate Federal facilities only to the extent that such regulation is clearly authorized by Congress through "waivers of sovereign immunity." Where no waiver of sovereign immunity exists, the Federal government is not subject to State regulation. There is no Federal environmental statute for which a waiver of sovereign immunity makes the New Mexico Ground and Surface Water Protection Regulations applicable to the Air Force.

Attachment 1 Cannon AFB's Comments for Draft Discharge Permit Renewal and Modification, DP-873, Cannon Air Force Base May 2021

			With respect to sovereign immunity, the Clean Water Act (CWA) does not specifically address
			contamination of groundwater resources, but is a subject addressed by provisions in other laws including SDWA; RCRA; and CERCLA. For the SDWA, sovereign immunity is Waived under 42 U.S.C. § 300j-6, for "Each Federal agency engaged in any activity resulting, or which may result in, underground injection which endangers drinking watershall be subject to, and comply with, all Federal, State, interstate, and local requirements to the same extent as any person is subject to such requirements" First and foremost, drinking water would need to be implicated for the substantive provisions to be requirements, however, drinking water is not implicated.
			The Air Force posits that this permit should focus on the current discharges from the WWTP and septic tank/leach field systems. The effluent samples analyzed for PFOS/PFOA in the fall of 2019 at the request of NMED found little to no PFOS/PFOA concentrations present in the effluent (ranging from 0 ppt to 17 ppt). These concentrations in the effluent are well below the current EPA LHA for drinking water of 70 ppt. These concentrations would not trigger a corrective action plan because corrective action under the 20.6.2.3109(E) require initiating corrective action only if water quality standards under the Rules are exceeded because of a permittee's discharge.
3	NA	NA	NMED's use of residential screening levels in DP-873 is inappropriate. In Condition #6 NMED states that "The Permittee shall apply reclaimed wastewater to re-use areas and for dust control and construction purposes in a manner that does not result in the exceedance of PFCs in soils of the residential, non-cancer soil screening level specified in the most current NMED Risk Assessment Guidance for Site Investigations and Remediation (Risk Assessment Guidance) and the associated soil screening levels for contaminants presented in Table A-1". The use of this Risk Assessment Guidance as an automatic trigger for investigation and/or abatement is inappropriate for a number of reasons: a) Although guidance documents, such as the referenced Risk Assessment Guidance, are intended to clarify regulations they are not enforceable. The soil screening levels (SSLs) in Table A-1 never went through notice and comment rulemaking. b) The residential SSLs referenced by NMED are based on exposure to soil (to depths of zero to 10 feet below ground surface [bgs]) through three exposure pathways: direct ingestion, dermal absorption, and inhalation of volatiles and fugitive dusts. In Appendix E of the Risk Assessment Guidance, NMED acknowledges that there are no promulgated federal regulatory criteria for evaluating the intake via the soil exposure pathway.

Attachment 1

			c) As stated in the Introduction to this Risk Assessment Guidance "It is important to note that SSLs do not in themselves represent cleanup standards, and the SSLs [soil screening levels] alone do not trigger the need for a response action or define "unacceptable" levels of contamination in soil". As NMED correctly states on pg. 5 of the Risk Assessment Guidance: "The exceedance of an SSL does not necessarily indicate that current conditions are not safe or that they present an unacceptable risk. Rather, a site risk calculation that exceeds a target value may simply indicate the need for further evaluation or refinement of the exposure model". NMED is attempting to use screening levels as black and white triggers for initiating corrective action contrary to its own guidance. d) Finally, these SSLs are unrelated to permitting under the Ground and Surface Water Protection regulations. The SSLs referenced by NMED in Condition #6 are completely unrelated to the assessment of the potential for PFOS/PFOA to migrate from shallow soil to groundwater. As stated above, these SSLs only evaluate three exposure pathways: direct ingestion, dermal absorption, and inhalation of volatiles and fugitive dusts.
4	NA	NA	As NMED notes in the Introduction to the draft permit, the list of "toxic pollutants" in 20.6.2.7(T)(2) did not include any PFCs (namely PFOS/PFOA) until the Ground and Surface Water Protection rules were amended in 2018. NMED has not formally established numerical standards for PFCs, as stated in 20.6.2.3103(A)(2). NMED acknowledges that there are no federal maximum contaminant levels (MCLs) for any PFCs (which includes PFOS/PFOA). Rather than engaging in the formal notice and comment rulemaking process that would: (1) facilitate a robust and transparent vetting of the scientific data and (2) allow for public comment, NMED has chosen to use tap water screening levels from the Risk Assessment Guidance as enforceable standards to drive corrective action and possibly abatement. As stated above, guidance documents cannot be treated as rules.
5	NA	NA	The requirement to establish a financial assurance instrument imposed by NMED on Page 3 of the draft permit is unacceptable. The language starting on line 1 of Page 3 with the words: "This Discharge Permit requiresending with the word, "activities" shall be struck and in substitution add: "CAFB commits to seeking appropriate funding from Congress to meet the fiscal expenditures required by the tasks determined to be legally applicable to the United States set forth within this Discharge Permit. Nothing in this Discharge Permit shall be interpreted in a manner that will cause the United States Air Force to be in violation of the Anti-Deficiency Act, 31 U.S.C. § 1341."
6	#23	12	In Conditions 3, 8, 28, 29, 37, and 69, the permit uses a combination of periodic monitoring reports or quarterly reporting. In Condition 23 quarterly monitoring reporting is required and a schedule is provided. The Air Force is asking for clarity between periodic monitoring reporting and quarterly reports

Attachment 1
Cannon AFB's Comments for Draft Discharge Permit Renewal and Modification, DP-873, Cannon Air Force Base May 2021

			IV Conditions
			A. Operational Plan
7	#2	5	See General Comment #1 above
8	#6	6	See General Comment # 2 above
9	#10	8	Condition 10(b)(vii) should be deleted for the reasons detailed in Comments #1 and #2 above.
10	#14	9-10	The language is confusing as it appears to incorrectly imply that the North Playa Lake is lined. Please clarify.
			B. Monitoring and Reporting
11	#24	13	Prior versions of DP-873 limited groundwater sampling to monitoring wells MW-E, MW-F, MW-G, MW-H (annually), MW-N, MW-O, and MW-P (quarterly) for the following monitoring parameters nitrate (NO ₃), Total Kjeldahl Nitrogen (TKN), chlorine (Cl), and total dissolved solids (TDS). The 2009 permit did not contain any monitoring well sampling requirements. In 2014 the permit required the Air Force to sample monitoring wells MW-Na, MW0Oa, and MW-Pa during the first year of the permit for the 53 constituents then associated with NMAC 20.6.2.3103. The Air Force agrees that these wells are representative of monitoring the performance of the WWTP and septic tank/leach field systems. As detailed in Comment #1 above, the Air Force opposes the installation of any additional groundwater monitoring wells intended to monitor impact from the prior use of AFFF at CAFB. The investigation of the nature and extent of any groundwater impact from these past activities is being implemented under CERCLA.
12	#25	13	See Comment #10 above.
13	#25	13	Please clarify the following statement: "Unless otherwise noted in this Discharge Permit, the requirement to install a groundwater monitoring well down gradient of a source is not contingent upon construction of the Facility, or discharge of wastewater from the Facility"
14	#26	14	See Comment #10 above.
15	#24, 25, 26, 27, 50, and 51	13-14 and 26- 27	The Air Force does not believe that these conditions are applicable (see Comment 1). Even if they were applicable, the timelines associated with them are too short to accommodate the federal contracting process. The existing contract in-place to support the Cannon AFB DP-873 does not include the installation of monitoring wells, survey work, preparing a monitoring well completion report, and the new sampling requirements in this draft permit. Therefore, this would be a new requirement, and would require the Air Force to go through the proper funding cycles and the acquisition process. Part of this process is determining the availability of funds. Since this would be a new requirement within the current fiscal year, there are no funds planned for such an event. In accordance with the Anti-Deficiency Act, 31 U.S.C. § 1341, an agency of the federal government, such as the Air Force, may only spend in a given fiscal year the

			amounts which have been properly appropriated to that agency for the needs of that agency during that fiscal year. Additionally, as outlined in the Federal Acquisition Regulation (FAR) 32.702, no officer or employee of the Government may create or authorize an obligation in excess of the funds available, or in advance of appropriations. The length of time that this process takes is related to the dollar amount of the contract. To fulfill a requirement such as the one outlined by this comment would require a minimum of 120 and 180 days to obtain project funding, identify the acquisition strategy, and award a contract. With this being said, it should be noted that the USAF is currently funding a Remedial Investigation for PFOS/PFOA under the CERCLA process. Installation of these wells and sampling for PFOS/PFOA outside of
			this process may be considered as waste, and/or abuse as defined by the Office of Inspector General,
			United States Agency for International Development (https://oig.usaid.gov/node/221).
16	#28	15-16	See Comment #10 above.
17	#28	15-16	The Air Force respectfully requests the technical and regulatory justifications for analyzing groundwater for all constituents listed in Section 20.6.2.3103 NMAC and all toxic pollutants listed in the definitions of 20.6.2.7 NMAC. The effluent from the WWTP is well characterized and has been sampled regularly under both DP-873 and the NPDES permit. Groundwater monitoring in this permit should be related to the characteristics of the discharge going forward. The combined list of constituents that is required in the first year of the permit includes 151 constituents, formerly 103 constituents. Analyzing them would cost taxpayers approximately \$2,000.00 each year, and the additional analysis of PFOS/PFOA (not historically included in the permit) will increase the cost by approximately \$1,300.00 each year. The overall cost increase is approximately \$3,300.00 each year. As NMED is aware, the Air Force samples monitoring wells associated with its CERCLA activities and the corrective action provisions in the RCRA Permit. Under the existing RCRA permit groundwater samples are collected from 11 monitoring wells, and analyzed for volatile organic compounds (VOCs), target analyte list (TAL) metals (including mercury), hexavalent chromium, perchlorate, chloride, nitrate/nitrite, sulfate, ammonia, total organic carbon (TOC), and water quality parameters (pH, dissolved oxygen (DO), specific conductance, turbidity, and temperature). Of the 11 monitoring wells sampled under the RCRA permit, five of them (MW-F, MW-G, MW-Na, MW-Oa, and MW-Pa) have been monitored and sampled under previous permits for nitrate, TKN, Cl, and TDS. Monitoring wells MW-Na, MW-Oa, and MW-Pa have also been sampled once under the 2014 permit requirements for the constituents listed in 20.6.2.3103 NMAC. There is no technical or regulatory basis for such an extensive monitoring list under this permit.

Attachment 1
Cannon AFB's Comments for Draft Discharge Permit Renewal and Modification, DP-873, Cannon Air Force Base May 2021

			Lastly, as stated in Comment #1 above, the Air Force is addressing the investigation and possible
			remediation for PFOS/PFOA from the historical use of AFFF under CERCLA.
18	#29	16	As summarized in Comment #1 above, the Air Force is currently monitoring for PFHxS, PFOS, and PFOA that resulted from the past use of AFFF under CERCLA. Therefore, the sampling requirements for these compounds in Condition #29 should be deleted in their entirety.
19	#33	18	NMED identifies six different areas (Treated Wastewater Storage Basin, North Playa Lake, Golf Course Impoundment, driving range, softball fields and dog park) that shall be measured monthly using four totalizing flow meters. CAFB has four totalizers, located at the WWTP that monitor the flow of effluent water to the golf course pond, North Playa, Treated Wastewater Storage Basin, and the contractors fill point for construction water. The remaining areas have supply meters. Cannon AFB fails to see a need to add additional totalizing meters.
20	#38	20-21	Consistent with Comment #1 above, the Air Force is already assessing PFOS/PFOA compounds under the CERCLA authority; therefore, the sampling requirement in Condition #38 should be deleted in its entirety. In addition, as stated in Comment #2 above, NMED cannot use tap water screening levels as effluent criteria.
21	#42	22-23	See Comment #16 above. The effluent from the WWTP is well characterized and has been sampled regularly under both DP-873 and the NPDES permit.
22	#43	23-24	See Comment #16 above. The effluent from the WWTP is well characterized and has been sampled regularly under both DP-873 and the NPDES permit.
23	#43	23-24	Consistent with the prior Air Force comment that NMED is inappropriately invoking tap water guidance as an enforceable standard for a 1,4-dioxane screening level; Condition 43 is/should be deleted in its entirety. See Comment #2 above.
			C. Additional Studies Required
24	#48	25	As detailed in Comment #2 above, this requirement for a soils investigation work plan is unrelated to permitting under the Ground and Surface Water Protection regulations. The SSLs referenced by NMED in the Risk Assessment Guidance are completely unrelated to the assessment of the potential for any constituent to migrate from shallow soil to groundwater. These SSLs only evaluate three exposure pathways: direct ingestion, dermal absorption, and inhalation of volatiles and fugitive dusts.
			In addition and consistent with Comment #1 that the Air Force is already assessing PFOS/PFOA under CERCLA authority; the soils investigation work plan is/should be deleted in its entirety.
			D. Contingency Plan

Attachment 1
Cannon AFB's Comments for Draft Discharge Permit Renewal and Modification, DP-873, Cannon Air Force Base May 2021

25	#49	25-26	As detailed in Comment #1 above, this permit focuses on the current quality of the treated effluent. Any exceedance in a groundwater well monitored under this permit must be related to the discharge during the pendency of the permit. The corrective action provisions under 20.6.2.3109(E) NMAC require the initiation of corrective action only if water quality standards under the Rules are exceeded because of a permittees' discharge. Consistent with Air Force comments that specific compounds identified, as appropriate, by either a 40 CFR Part 264 standard or a SDWA standard (MCL), the Corrective Action Plan (CAP) requirement is/should be deleted in its entirety.
26	#49	26	As stated in Comment #1 above, the Air Force is exempt under 20.6.2.4105(A)(2) NMAC from the abatement regulations in 20.6.2.4103 NMAC for the investigation and restoration activities related to PFOS/PFOA because we are following the CERCLA process. The Air Force is also exempt under 20.6.2.4105(A)(3) NMAC for groundwater remediation being performed pursuant to the corrective action provisions in the RCRA Hazardous Waste Corrective Actions Only Permit for Cannon AFB (NM EPA ID#NM7572124454).
27	#50	26	See Comment #14 above.
28	#51	27	See Comment #14 above.
29	#52	27	As detailed in Comment #3 above, NMED cannot use tap water screening levels from the Risk Assessment Guidance as enforceable standards to drive corrective action and because guidance documents cannot be treated as rules. As stated in Comment #1 above, the Air Force employs the current EPA lifetime health advisory for drinking water of 70 ppt. PFOS/PFOA concentrations below this level would not trigger a corrective action plan because corrective action under the 20.6.2.3109(E) require initiating corrective action only if water quality standards under the Rules are exceeded in groundwater because of a permittees' discharge (not historical discharges). Therefore, the requirements set forth in Condition #52 should be struck in their entirety.
30	#52	27	Conditions #52, 53, 54, and 55 all describe the steps that must be taken if the concentrations of a contaminant in reclaimed wastewater exceeds a specified criteria. Only Conditions #52 and #54 would require an immediate halt to the distribution of reclaimed wastewater and the closure of the WWTP if the effluent standard was exceeded. NMED must be aware that if this action would lead to the potential

Attachment 1
Cannon AFB's Comments for Draft Discharge Permit Renewal and Modification, DP-873, Cannon Air Force Base May 2021

			shutdown of the base and to avoid an imminent threat to National Security, the Air Force will seek to continue to operate the WWTP in accordance with national security procedures. 33 USC §1323.
31	#52	27	See Comment #3 above.
32	#58	31	See Comment #14 above.
			E. Closure Plan
33	#62	33-34	The following components of the WWTP system and septic tank/leach fields are identified as solid waste management units under the corrective action provisions of CAFB's RCRA Permit: SWMU 102 WWTP Effluent, Discharge Pipe and Inlet Chamber (currently on Table 2 CAC Approved Jan 2015, and Approval with Modifications April 11, 2019).
			As such these SWMUs are not subject to the closure or post-closure requirements of this discharge permit. Clearly, it is not the Groundwater Quality Bureau's intent to conflict or supersede the corrective action provisions of the RCRA Permit. These corrective action requirements apply to releases of hazardous constituents listed in 40 CFR Part 261, Appendix VIII or 40 CFR Part 264, Appendix IX.
			As detailed in Comment #1 above, Air Force is assessing and mitigating PFOS and PFOA contamination from past use of AFFF under CERCLA, DERP, and NCP. This includes any impacted SWMUs.
34	#62	33-34	As stated above, the groundwater monitoring provisions for hazardous constituents listed in 40 CFR Part 261, Appendix VIII or 40 CFR Part 264, Appendix IX also do not apply to any of the SWMUs listed above.
			As detailed in Comment #1 above, Air Force is assessing and mitigating PFOS and PFOA contamination from past use of AFFF under CERCLA, DERP, and NCP. This includes any groundwater monitoring from impacted SWMUs.
35	#62	33-34	As stated above, NMED cannot impose a financial assurance requirement on the Air Force. The following language should be stricken: "The Permittee shall ensure the closure plan has sufficient detail to estimate the cost of complete closure of all wastewater related infrastructure and post-closure monitoring for the purpose of establishing and maintaining financial assurance. The detailed closure plan shall provide sufficient detail to estimate the cost of operation and maintenance of the groundwater monitoring system. Inherent in this detail is an estimate of the time (after the cessation of Facility operation) that the groundwater monitoring system will have to remain in place and in operation, i.e., until WQCC groundwater standards or background concentrations have been met for at least eight consecutive quarters".

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Cannon AFB's Comments for Draft Discharge Permit Renewal and Modification, DP-873, Cannon Air Force Base May 2021

36	#63	34	As stated above, NMED cannot impose a financial assurance requirement on the Air Force. Therefore
			Condition #63 should be stricken in its entirety.
37	#64	34-36	As stated above, NMED cannot impose a financial assurance requirement on the Air Force. Therefore
			Condition #64 should be stricken in its entirety.
38	#65	36-37	As stated above, NMED cannot impose a financial assurance requirement on the Air Force. Therefore
			Condition #65 should be stricken in its entirety.
39	#66	37-38	The following components of the WWTP system and septic tank/leach fields are identified as solid waste
			management units under the corrective action provisions of CAFB's RCRA Permit: SWMU 102 WWTP
			Effluent, Discharge Pipe and Inlet Chamber (currently on Table 2 CAC Approved Jan 2015, and Approval with Modifications April 11, 2019).
			With Modifications (Ipril 12) 2015).
			As such these SWMUs are not subject to the closure or post-closure requirements of this discharge permit.
			Clearly, it is not the Groundwater Quality Bureau's intent to conflict or supersede the corrective action
			provisions of the RCRA Permit. These corrective action requirements apply to releases of hazardous
			constituents listed in 40 CFR Part 261, Appendix VIII or 40 CFR Part 264, Appendix IX.
			As detailed in Comment #1 above, Air Force is assessing and mitigating PFOS and PFOA contamination from
			past use of AFFF under CERCLA, DERP, and NCP. This includes any impacted SWMUs.
40	#66	37-38	As detailed in Comments #1, #3, #17, # 19, & #22 above, the Air Force will not test for PFOS/PFOA, or 1, 4-
			dioxane as no scientific basis exists documenting the need for further sampling or testing. As the Air Force
			has noted, these chemicals are not hazardous constituents under any of the relevant regulations, such as
			CERCLA/IRIS or 40 CFR Parts 261 and 264, as adopted in 20.4.1.200, .500, .501 NMAC. No past or current
			data demonstrates an imminent or substantial endangerment to human health or the environment IAW
			CERCLA/IRIS standards.
41	#66	37-38	See Comment #14 above. Additionally, the WWTP is a mission essential facility at Cannon AFB. Terminating
			discharge to the WWTP would shut down the mission.
			F. General Terms and Conditions
42	#74	42	Clause 74 is to be stricken in its entirety. No fiscal authority exists for New Mexico to assess such penalty
40		42.42	under WQA 74-6-10(C) & 74-6-10.1
43	#75	42-43	Clause 75 must be modified by striking all the words in the clause starting with the word, "guilty". The
			following words in substitution should be added: "potentially subject to prosecution in a state or federal
			venue as is determined appropriate at the time under the appropriate federal or state criminal provision."

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Cannon AFB's Comments for Draft Discharge Permit Renewal and Modification, DP-873, Cannon Air Force Base May 2021

44	#76	43	Strike the language after COMPLIANCE WITH OTHER LAWS and insert in substitution: "The requirements in this Discharge Permit are also drafted so as to meet 40 CFR Part 264, 20.4.1.200, 500, 501 NMAC
			groundwater protection requirements. As such, the Installation RCRA permit (NM0030236) is incorporated
			for reference purposes. Compliance with the portions of the RCRA permit pertaining to groundwater
			protection shall also be considered to be compliance of this Discharge Permit."
45	#77	43	In the second line change "thirty" to "sixty". After the sentence ending with the words: "judicial review".
			Add: "The United States expressly reserves the right to file suit in federal court without filing a petition for
			review before the WQCC"
46	#79	43-44	PERMIT FEES Change the "30" to "90".
			Discharge Permit Summary
47	NA	1	There is no irrigation system at Building 777, and the septic systems at Facilities 244, and 2332 are inactive.
49 50	NA NA NA	1-2 3 4	The septic systems on Cannon AFB are independent systems with the average daily flow rate for the septic systems being less than 5,000 GPD. Since these systems are currently less than 5,000 GPD, these systems are exempt from the the Underground Injection Control (UIC) provisions. Cannon AFB believes that these independent tanks should be removed from the DP-873, and Cannon AFB will permit these systems separately under 20.7.3 NMAC. Cannon AFB is investigating the dog kennel septic tanks and leach fields and is requesting that they be removed from this permit until there is information indicating they are properly covered under the UIC regulations. There is an existing well at CAFB identified as MW-Fa The Air Force opposes the inclusion of monitoring wells installed under the CERCLA investigation in this
			permit. As stated in Comment #1 above, the investigation of the nature and extent of any groundwater impact from past use of AFFF is being implemented under CERCLA.
			Well Abandonment Guidelines
51	NA		See Comment #1 above.
			Additionally, the requirements appear to be similar but inconsistent with the more stringent well
			abandonment requirements in CAFB's RCRA corrective action only permit. The Air Force respectfully
			request that the Groundwater Quality Bureau coordinate with the Hazardous Waste Bureau to ensure there are no conflicts between the Bureaus regarding well abandonment requirements at CAFB.